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Deferment of Railwaymen

THE statement last week by the Minister of Transport, Mr. Alfred Barnes, that deferment of military service for some 2,900 railwaymen, mostly "in certain key grades," is under consideration by the Government, is welcome. The precedent for deferment of essential workers is that of underground mineworkers, and in agriculture, deferment will be possible in certain circumstances, though young agricultural workers as such will be called up next winter. The exemption of workers in certain industries only creates difficulties for the Government, which—though its decision has not so far been made—can now expect a flood of applications from others which consider themselves equally essential. It is presumably for this reason that the number of young railwaymen considered for deferment is relatively low, the smallest compatible with efficiency in operating. The reason for the change of attitude from previous apparent unwillingness on grounds of equity to make any sort of concession on deferment is not clear, but examination of the causes of recent operating difficulties on the railways and of the prospects for next winter due to staff shortage, no doubt have played an important part. Operating difficulties have been caused largely by shortage of firemen, who in railway practice must include many men in the national service age groups. Many conscripts, moreover, do not return to the railways after national service. There is also the consideration that many men not hitherto exempt would be in wartime. Another factor may be the allegation, not proved generally true, that conscripted railwaymen are not employed to best advantage (as for instance in the Transportation branch of the Royal Engineers) in the forces; there may be good reasons for this, and it is certain that the fighting services try to make use of civilian skills. Meanwhile hopes of implementing the proposals to save manpower (discussed in our last week's issue) under consideration by the Railway Executive and the unions, have been increased by the support of the National Union of Railwaymen and deferment, if granted, should win over the Associated Society of Locomotive Engineers & Firemen, which considers it an essential preliminary to other steps. With the present shortage of railwaymen in Britain, it is an irony of fate that the New South Wales Government should include this country in those in which, as announced last week, it seeks recruits for its own depleted railway labour force.

Stormy Passage for the B.T.C.

THE simile of stability drawn by Lord Hurcomb, Chairman of the British Transport Committee, in his reference to marine stabilisers on the occasion of the launch of British Railways steamer *Normannia*, described elsewhere in this issue, is apt. A "stabilising and comforting device" should be attached, he said, to the nationalised transport undertaking when in troubled political waters and in "those strong currents set in motion by sectional interests" which oppose changes in its organisation. He did not add that neither heavy seas nor contrary and cross currents, though they may cause serious monetary loss to her owners and to many others concerned, can stop the ship from making port. That the B.T.C. is making progress, though slow and politically stormy, towards its objective seems clear from its latest report. To preserve, however, "financial equilibrium against mounting seas of cost" (of which latter new ships are a good example) without compensating adjustments in fares and freight, is impossible when, as with the Commission, the scope for major economies is limited.

Impending Coal Shortage

RAPIDLY increasing demands in relation to a slower rise in output seem to be the chief cause of the coal shortages threatened for next winter in Britain and on the Continent. Some European countries might seek to import from Britain, though the needs of British industry probably would preclude this; and imports of coal from U.S.A. are envisaged. The effects of such a shortage on British Railways, both as consumers and carriers of coal, would be serious. The experience of last winter, when the railways were directed to save coal (which they could do only by curtailing passenger services) points to a similar fiat by the Government should another shortage arise. As carriers, the railways, already affected by a manpower shortage likely to be made worse next winter for reasons discussed in our July 6 issue, would have the difficulty they have already experienced in South Wales in handling imported coal with a layout planned for export traffic. Nor are the new works for facilitating freight traffic, of which we gave some details last week, aimed at overcoming this particular difficulty, though, when complete, they would certainly help. Meanwhile the Industrial Coal Consumers' Council has stressed the urgency of importing coal before the winter transport difficulties begin.

Mr. Deakin Upsets the N.U.R.

IT was not surprising that the speech made at the Transport & General Workers' Union conference by its General Secretary, Mr Arthur Deakin, on whose moderation we commented last week, was unacceptable in some trades union quarters. Under the pseudonym "Historian," a contributor to last week's issue of *The Railway Review*, the organ of the National Union of Railwaymen, criticises

the "defeatist" tone of Mr. Deakin's remarks on the impracticability of further nationalisation and attacks the T.G.W.U. A general trades union, he states, which competes with other unions recruiting in the same fields, and represents in its membership only a fraction of the employees in each of those fields, has no place in planned, nationalised industry. For this reason, he maintains, Mr. Deakin is opposed to nationalisation, and has always opposed trades union rationalisation, being a believer in private enterprise who judges every proposed change by the capitalist criterion: How will it affect the business? The socialist criterion, "Historian" points out, is very different: How will it affect the workers? He does not appear to recognise the ultimate, inevitable, dependence of the worker's welfare on the wellbeing of the business. Whatever views may be held of the effectiveness of Mr. Deakin and his unwieldly union in handling disputes, there could hardly be a better back-handed compliment than this—nor apter condemnation of the partisanship of some trades unionists.

B.T.C. Charges Schemes Postponed

THE answer by Mr. Alfred Barnes, Minister of Transport, to a Parliamentary question recorded on other pages this week, means that if the Minister grants the request of the British Transport Commission for postponement, lodging of the Commission's draft merchandise charges scheme, due to be lodged with the Transport Tribunal on August 5, is likely to be postponed for "only a few months," largely because of the need for further discussion with coastal shipping interests; in addition, two more years probably will be needed for preparation of the draft dock charges scheme, because of its complexity. Mr. Barnes' allusion to coastal shipping in the case of the merchandise charges scheme seems to imply that the scheme will embody to some extent the principle of "integration" of the various forms of nationalised transport as regards charges; but it would be idle to speculate before publication how far this will apply in the complex question of rail and road charges.

Wages Restraint and the T.U.C.

IN preparation for their recommendations to the Trades Union Congress in September, members of the T.U.C. special economic committee last week discussed wages, profits, and prices with the Chancellor of the Exchequer. Although Mr. Gaitskell appealed for moderation in wage claims, he did not do more than appeal in general terms for wages restraint, as such, though he urged that higher productivity should result from higher pay. Nor could he promise any measures such as those sought by the T.U.C. to control profits and check prices. If the Chancellor cannot specify any means of checking price increases, the T.U.C. General Council will find it hard to secure backing for abstention from further wage claims. Many wage demands recently have been lodged, or are about to be; the latter include a probable joint demand by the three railway unions. In addition to the cost of living, a factor in railway wages now stressed by the unions is their low level compared with other and therefore more attractive industries. Another factor, but not stressed, is the catastrophic effect on revenue of last January's railway wage increases, and, in view of the size of the railway industry, the inflationary effect of any additional increase.

Overseas Railway Traffics

SUBSTANTIAL advances in Antofagasta (Chili) & Bolivia traffics continued during the fortnight ended July 13, with receipts higher by £77,450 and £53,410 in the two weeks under review. Receipts for the week ended July 6 amounted to £132,850 and to £130,140 in the following week; on the aggregate Antofagasta traffics for the current 28 weeks have risen by £1,514,840 to £3,240,310. Gold Coast receipts for April showed an increase of £64,284 at £293.464, and in the succeeding month made a £5,883 improvement to £262,770. Aggregate traffics for the first two months of the financial year 1951-52 are £556,234, as compared with £486,067 for the equivalent period of 1950-51. The recent decline in Dorada receipts was arrested during June, when traffics at £36,543 made a £12,762 improvement over last year, and receipts for the current 26 weeks at £213,760 are now only £17,412 below those for last year. Taltal traffics fell by $259,456 during June, but total receipts for the year 1950-51 were $2,959,409 higher at $20,544,647.

Future of the G.N.R.(I.)

THE talks earlier this week on the future of the Great Northern Railway of Ireland, to which we referred in last week's issue, between Mr. Sean Lemass, Minister of Industry & Commerce in the Republic, and Mr. W. V. McCleery, the Northern Ireland Minister of Commerce, lasted only two days. What transpired will not be known until the Ministers have reported to their Governments, and meetings may perhaps be resumed later. Neither Minister was accompanied by representatives of the respective Ministry of Finance; this may mean that the talks were largely exploratory and not concerned with details of the purchase of the railway—more particularly as previous negotiations have been with the former Fine Gael Government in the Republic. It is now six months since both Governments agreed to acquire the line from G.N.R. stockholders for £3,900,000, and subsequent delays have been due very largely to political causes, including the question of the constitutional position of Northern Ireland in relation to the partition of the railway between the Governments. The rumour of purchase of the G.N.R. by "British Railways" has, as was to be expected, been officially denied.

South African Railway Schemes Delayed

IMPROVEMENT schemes to cost more than £14,500,000 have been indefinitely postponed by the South African Railways administration and at the same time two further schemes which have been estimated at about £3,750,000 between them have had to be abandoned. Those schemes which have been dropped entirely are for a railway hotel in Pretoria costing £1,056,000 and new administrative offices costing £2,695,000. Mr. D. H. C. du Plessis, Acting General Manager, said recently that the postponed schemes included the provision of new station buildings and offices in Cape Town and Durban, while other deferred projects included the regrading of the Olifantsrevier to Belfast line, estimated to cost £1,530,000, electrification of the Wattles-Vereeniging section at a cost of £643,000, and the remodelling at a cost of £1,262,000 of the East London station yard. Various civil engineering works are also involved, including deviations, with a tunnel, on the Doorns-Kleinstraat line in the Cape to cost £1,380,000, and other deviations on the Gernhill-Haenismith line in Natal costing £2,468,000.

Transport Inquiry in Northern Ireland

THE Government Bill, the Northern Ireland (Special Inquiries) Bill, which is expected to be passed by the Northern Ireland Parliament by today, authorises the holding of a public inquiry not only into the Ulster Transport Authority undertaking, but into any matter (including transport to or from Northern Ireland) relating to or affecting transport in the Six Counties; the Belfast Corporation transport undertaking is excluded. The Minister of Commerce, Mr. W. V. McCleery, is to direct the Transport Tribunal of Northern Ireland to hold the inquiry, which will have the usual powers as to evidence; and subsequently he will lay the Tribunal's report before Parliament. As stated by Mr. McCleery (and reported in our July 13 issue) the occasion of an impartial inquiry is the rapid deterioration in public transport generally and the deficits incurred, resulting in conflicting criticisms of U.T.A. policy and management. The inclusion, however, in the terms of

reference of transport to and from Northern Ireland presumably allows for consideration of the Great Northern Railway problem.

Presenting British Railways to the Public

AN outstanding example of the type of book which seeks to describe the activities of a large organisation to the public is afforded by the recent Railway Executive publication "Your British Railways." In accordance with present trends in such literature, accent is placed on the human background to the story, which in this case lies behind the many features of British Railways familiar to the passenger, but usually taken for granted. As well as helping the travelling public to understand something of the organisation behind such matters as railway signalling, engine driving, and travelling post offices, the book illustrates the part played by British Railways in the social and economic life of the country. Although in presenting this picture story of British Railways, it was not intended to display only the new and spectacular, no chance has been lost of using up-to-date material, and throughout the book modern methods of railway operation are portrayed in simple but effective form.

"Some Railway Shortcomings"

IN our last week's issue we published a letter dealing with some criticisms of railway administration. As might be expected, it has attracted a good deal of attention and comment. On another page we publish a letter from Mr. John Elliot, Chairman of the Railway Executive. Mr. Elliot makes no attempt to deal with the specific points raised by the original correspondent. It could not be expected that he would do so, for, as we pointed out in our comment on the letter last week, replies to many of the matters raised have been given in the past and it is fairly clear that in some instances our correspondent was not fully informed as to the background of the issues.

Mr. Elliot has dealt with the letter on a much broader basis. He is more concerned to approach the matter from the general viewpoint that the morale of the great body of railway officers is a primary consideration in ensuring the well-being of British Railways. On this point there can be no dispute. The successful operation of transport in any of its forms ultimately must rest on the individual, at all the varying stages of the organisation, to a far greater extent than in many other industries. It is all the more gratifying, therefore, because of the importance of maintaining a good team spirit among railwaymen, that when criticisms are voiced by railway officers, even if anonymously, it should be demonstrated that the higher administration not only notes the criticism, but is prepared to advance reasons for the consideration of those who may be thinking along lines similar to those of the critic.

Briefly, the points that Mr. Elliot makes are that in the short period since British Railways were born, under the Transport Act, 1947, a process similar to, but much greater than, the old amalgamations from 1923 onwards has been in being, and that it could hardly be expected that the changes inevitable in such an organisational upheaval could be achieved without bringing in their wake disappointment and controversy. At such a time there must always be those who disagree with the way in which things are done. "The emotions, ambitions and disappointments of thousands of people inevitably make such changes as these with which we are concerned very difficult," writes Mr. Elliot, "but these difficulties will, I am confident, disappear as they did last time."

Very wisely, the Chairman of the Railway Executive, says quite frankly that he does not contend that everything on the railways is right, nor that there is not still a great deal to do and some things, perhaps, to be done differently. He emphasises the consultation which takes place between the Railway Executive and the Chief Regional Officers and the heads of departments on the many problems which arise, and he appeals for patience and understanding by everyone in the industry. That is essential to the smooth working of British Railways and to the achievement of success in the unified organisation which now obtains.

Mr. Elliot, in his 27 years with British Railways and one of its predecessors, the Southern Railway, has had a varied experience under both private and State ownership. Throughout his career he has laid great emphasis on the value of co-operation by, and with, all sections of railway staff. There can be no doubt that he appreciates to the full the value of having behind the Railway Executive a body of railway officers who are not merely acquiescent but wholly enthusiastic. In the light of the great changes which have been made in the last three-and-a-half years, it may be that some time will have to elapse before this can be achieved fully, but because Mr. Elliot's letter shows that he realises not only the importance of this objective, it should do much to give encouragement to railwaymen during a difficult period.

Metro-Cammell Festival Visit

PASSING through the works of the Metropolitan-Cammell Carriage & Wagon Co. Ltd. at Birmingham is a very wide variety of rolling stock destined for countries in many parts of the world. Apart from the latest examples of coaches for the London Transport Executive, the aluminium alloy surface line cars, which were described and illustrated in our May 4 issue, and some non-vestibule third class standard coaches for British Railways, which were described in our March 16 issue, the home railways are represented by 16-ton mineral wagons and hopper ballast wagons as well as some bogie bolster wagons. The principal stock for India consists of the lightweight electric motor coaches for the B.B. & C.I.R. and G.I.P.R. which, because of the especially interesting construction, incorporating the most modern methods, were the subject of a series of articles in *The Railway Gazette* earlier this year. Third class coaches for the Egyptian State Railways and brake vans for the New South Wales Government Railways are also being built, as are third class coaches for the Ceylon Government Railways. Argentina is represented by some four-wheel goods wagons. Railways in the African Continent are securing considerable additions to their rolling stock from these works. For the Rhodesia Railways first and second class coaches are being provided and for the East African Railways second class coaches and passenger brake vans, as well as covered goods wagons. Covered goods wagons are also being supplied to the Nigerian Railways.

The foregoing by no means exhausts the products now going through the Midland Works and Saltley Works, but they are the principal items which were inspected by a number of guests who visited the works last Thursday at the invitation of the board of the company. The visit, which was held in connection with the Festival of Britain, was attended by about 150 representatives of many aspects of the railway industry in either its home or its overseas connections.

Those attending the visit comprised many of the leading personalities in the railway and railway engineering supply industries. The Indian, Pakistan, New Zealand, Rhodesian, Australian, South African, Sudan, Egyptian, Nyasaland, Benguela, Sierra Leone, Antofagasta, and Ulster railways were all represented by senior officials; six members of the Crown Agents department attended, and the Adviser on Inland Transport to the Colonial Office, as well as two of the Railway Inspecting Officers of the Ministry of Transport and officials of the Ministry of Supply. There were also present a number of officers of the British Transport Commission, the Railway Executive, London Transport Executive and the British Railways Regions. Prominent railway supply manufacturers, consulting and inspecting engineers and so forth were represented by senior directors or partners.

The guests travelled by special train from Euston to Birmingham and back. As British Railways have attracted attention recently in regard to the service provided on some special trains, it should be recorded that

the arrangements on this occasion were wholly admirable. They were the result of close co-operation between representatives of the Metropolitan-Cammell Carriage & Wagon Co. Ltd. and the various responsible departments of the London Midland Region. The result must have been equally gratifying to both parties. The first class open coaching stock provided was pristine in its cleanliness, both inside and out. The staff provided were not merely efficient, but cheerful and helpful, and the train itself made good time in both directions. The meals served on the train and the service of them left nothing to be desired.

This special train and the general arrangement were reminiscent of some of the best similar parties provided in the easier days between the wars. The comments of the guests on the arrangements, and the way in which they were carried out, make a striking contrast to some of those which were forthcoming after the International Conference of Naval Architects & Marine Engineers recently, and about which a letter appeared in our last week's issue. There seems no doubt that, on that occasion, something went seriously wrong but, in fairness to British Railways, it should be pointed out that, for the special trains run in connection with that conference, third class rolling stock had been stipulated which, in our view, was a mistake. The special train to and from Birmingham last week showed what can be done on occasions of this kind. Combined with the pains taken by the officials of the Metropolitan-Cammell Carriage & Wagon Co. Ltd. for the interest and entertainment of their guests, the event left a very pleasing impression on those who participated. This should be the more valuable as these included a number with overseas associations.

Railway Freight Handling

HITHERTO, reports of the British productivity teams which have visited the United States have been focussed mainly on a particular manufacturing industry, stressing in most cases the tendency of American firms to concentrate on producing maximum quantities of a few products and thus take full advantage of the economies to be effected by mass production methods. These considerations do not, of course, apply to any great extent in the transport industry, where the operator must provide for his customers the service they require, and where he cannot control the size or shape or weights of the packages he has to handle. Therefore in this respect there is no basic difference between the problems confronting the American operator and his British counterpart. From the report of the team which last year studied freight handling methods in the U.S.A., which is summarised elsewhere in this issue, there would appear to be no very startling difference in the standard of achievements in the two countries, whether in rail or road or dock premises. There are, however, variations in technique, and in the degree to which methods common to both have found favour in one country more than the other, and these are worth close study. Americans are very machine-minded and the use of mechanical devices is encouraged by managements and generally accepted by the employees. While there is not much difference between the two countries in the capital cost of the more general types of mechanical appliances, the greater potential saving in wages in America affords more scope there for the use of such equipment. The railway unions in the U.S.A. do not favour bonus schemes.

British Railways recognise the potentialities of palletisation in facilitating materials handling and storage. This was made clear by Mr. David Blee, Member of the Railway Executive, in a paper on freight handling of which an abstract was given in our July 30, 1948, issue, and since then considerable progress has been made. However, although the extension of domestic palletisation is being independently pursued in this country, there is plenty of scope in the opinion of the team for the establishment of a central committee to include representatives of all sections of the transport industry, manufacturers, and the British Standards Institution to investigate, among other things, methods of promoting the maximum adoption of palletised or unit loads for throughout transport and the best means of securing some standardisation of pallet sizes. Some time ago the British Standards Institution appointed a Palletisation Committee to consider standardisation and only last week a demonstration was given to further this object. Despite longer experience in America progress towards standardisation would seem to be no further advanced than in Britain. Considerable progress is being made in the U.S.A. in the elimination of pallets by the development of unit loads and the strapping or gluing of the packages. Very few expendable pallets, as such, were seen by the team, but experiments are being made with different materials and designs to develop an economic and efficient pallet of this kind. There is at present no such thing as a pallet pool in the U.S.A. With one exception no type of mechanical equipment was seen which is not in general use here. The exception is the drag-line conveyor, overhead or underfloor, which the team recommends should be considered for use in depots in this country. One railway depot in Chicago has installed a conveyor 2,800 ft. long.

Having in mind the importance of wagon availability the team made inquiries as to the working of terminal control systems, and, although it is not easy to relate terminal times in the two countries, the average time wagons are held under load at terminals in Britain would seem to be appreciably less than in the U.S.A. There is no index of terminal user times in America, measurement of wagon detention at terminals being limited to a record of daily depot clearances, wagons unworked, pursuit of individual companies stock, and application of demurrage arrangements.

Vitalised Wagon Returns

THE U.S.A. railways make great play with their wagon records. For many years they have published weekly statements of wagon loadings, which are analysed promptly under the headings of grain, coal, coke, ore, forest products, less-than-wagon-load merchandise, livestock, and miscellaneous. About the 20th of each month the Association of American Railroads circulates a summary of the figures as closely up-to-date as possible. A lively commentary accompanies the figures to explain the current problems of wagon supply and traffic movement. Not only railwaymen but the American people thus receive full and early news about the working of a stock of 1,811,300 wagons, with an average capacity of over 52 short-tons, on the country's 226,000 miles of railway.

On July 10, it was known in London that 18,262,850 wagons were loaded on the U.S.A. railways in the 24 weeks to June 16. That number was an increase of 11·4 per cent. on the same period of 1950 and of 5·6 per cent. on 1949. Not until July 28 will No. 6 of *Transport Statistics* come from the British Transport Commission with a table of " loaded wagons forwarded " in the first 24 weeks of the year, and nothing will be said about the significance of the figures. In contrast the American commentary tells how an 8 per cent. increase in the demand for box wagons could not be met in full; for one thing, to June 9 the loading of grain exceeded the quantity railed in the same period of all previous years, except 1947. Again we learn that exports of coal overseas have been heavy and are expected to run at the rate of 2,500,000 gross tons a month from June to the end of the year. The movement of coal *via* the Great Lakes is going well, while the transport of iron ore proceeds so satisfactorily that this season's goal of 5,000,000 tons by all-rail routes from the mines and 90,000,000 tons by the Great Lakes should be reached.

A useful item in the commentary gives the average turn-round time for each type of wagon during the previous month. In May " hoppers " were turned round in 12·6 days, open wagons in 13·8 days, and box wagons in 14·7 days. For all classes of wagons, the time was 14·78 days, 11 per cent. longer than the May, 1948, average. In June the railways had 41,000 more wagons in traffic than they had twelve months before, and they reduced the percentage of the total stock awaiting repairs to 5·2, but their efforts

to supply more wagons may be defeated if they cannot secure the traders' co-operation in loading and unloading wagons promptly.

In considering U.S.A. wagon records it should be borne in mind that the average carrying capacity is a ton greater than it was four years ago and two tons greater than ten years ago. Yet commodity loading statistics show that the 1950 average wagon load of 41 tons for all traffics was 1,200 lb. below the 1948 load. For products of mines, the average load of 57·3 tons was a ton larger and prevented a sharper fall in the general result, as these products fill 39 per cent. of all wagons forwarded under load. Evidently the 40-hour week affects the loading of wagons with other commodities. Manufactures and miscellaneous merchandise gave an average load of only 30·1 tons last year, 1,400 lb. less than in 1948. That is a serious decrease, as these loadings form 37 per cent. of the total and often consist of high-class traffic.

The downward trend of less-than-wagon-load traffic continues. Loadings this year run about 4 per cent. under 1950 and no less than 16 per cent. below 1949. About 20 years ago " smalls " occupied 1 in 4 of all wagons loaded. In 1950 the proportion fell to 1 in 9 and may soon drop to 1 in 10. Several railways are striving to retain the fragments of what was once a lucrative business, but one wonders whether they would be much out of pocket if they allowed road, water, and air carriers to handle most of the " smalls." An up-to-date statement of working costs might be illuminating!

The Penmaenmawr Collision

THE serious accident to the up " Irish Mail " on August 27, 1950, by which six lives were lost, was another of those cases where a combination of circumstances and lack of care led to all signals being cleared with a light engine standing on the main line. It was inquired into by the Chief Inspecting Officer of Railways, Lt.-Colonel G. R. S. Wilson, and his report is summarised in this issue. Brigadier C. A. Langley acted as assessor to the coroner, and the jury's rider, when returning a verdict of misadventure, gives added importance to consideration of the facts and the recommendations in the report.

Penmaenmawr is on what was the L.N.W.R. main line to Holyhead and, in common with many stations on that system, has no independent ground signals for controlling movements over the crossover road and through the points leading into the sidings. The operations preceding the collision came within the provision of Rule 69, the precise meaning of which had to be considered in relation to the actions of the three men involved. A local instruction applying to the use of a bell in the yard also bore on the case. The engine, carrying a goods guard, had arrived on the down line and passed to the up line through a crossover, the view towards which is somewhat impaired by a footbridge. On a pop whistle being given, the signalman, so he declared, restored the crossover and set the road into the yard. The over-run was such that he was able then to accept the express with such a movement in progress. He told a consistent story, the main point of which was that he heard a second pop whistle, which the driver positively denied giving, leading him to believe the engine, the light on which admittedly he could not see, to be clear inside the siding points, whereupon he restored them and cleared all signals for the fast train.

The exact movements made by the engine could not be established, but eventually it was found backing along the up line. The driver saw the up advanced starting signal go to clear and concluded that after all there was no train for him and he was to go back in the up direction. His evidence and that of his fireman and the goods guard was conflicting and even self-contradictory, and did not enable Colonel Wilson to come to a positive conclusion on certain vital matters. In the end, however, when the mail was heard approaching, a red light was shown to the box and seen by the signalman, who threw on all his signals.

In assessing responsibility Colonel Wilson had to consider the application of the relevant rules, including the ever recurring Rule 55, and the local instruction regarding the yard bell. He had to take account also of the probabilities involved in certain movements and of the correctness or otherwise of the signalman's statement that he was in no anxiety as to the engine's position and thought the red hand signal denoted that something had been found wrong with a pair of points. There was a question too as to whether a setting-back signal had been given by the guard himself.

The conclusion reached after hearing evidence is that the signalman must bear some responsibility, as even allowing for the fact that there is, in Colonel Wilson's opinion, some room for misinterpretation of the vital Rule 69, he was not relieved of his duty to take more care than he did to be satisfied that the engine had completed its intended movement, especially having regard to certain local circumstances. This responsibility is shared, however, in great measure by the driver who failed to arrange for Rule 55 to be carried out, or at least to draw attention to his position by whistling. Colonel Wilson doubts whether the rule ever entered his mind, while there was no justification for assuming the advanced starting signal to have been cleared for him. The guard knew for certain that the engine ought to have come into the yard, and saw it to be making an incorrect movement, yet did nothing effective " until brought to his senses by the noise of the approaching train." The box is to be renewed opposite the crossover and ground signals provided, with some track circuiting; in this way the intention of the jury's rider will be met. It is recommended to review the position in all Regions at places where there are no ground signals and regular shunting movements are carried out at some distance from the box, the provision of fixed signals being considered on the merits of each case.

The report refers also to the possibility that sufficient pains may not have been taken to explain to a young inexperienced man his responsibilities under Rule 69, especially in view of its ambiguous wording, something which may have produced lax working generally at the place, from which " a dangerous mistake was likely to occur sooner or later," and careful revision of the rule is recommended. The new British Railways Appendix will contain a special whistle signal to indicate " whole of train is clear in siding." " Nevertheless," says Colonel Wilson, " it does not seem right that a whistle signal, however precisely codified, should be held to relieve a signalman of his obligations under Rule 69." This accident indeed affords another example of how rules thought to be quite well worded are seen to give rise to different interpretations once they are brought seriously into question and that even experienced inspectors can be found to hold opposite views on their meaning.

The behaviour of the various types of rolling stock was of much interest and Colonel Wilson considers the wreckage to confirm the wisdom of the Railway Executive in adopting couplings of the rigidly holding central Buckeye type, although the long stroke buffers played a useful part in reducing shock. Such a coupling between first and second vehicles might have prevented over-riding and destruction of the sleeping car. It was remarkable how well stresses were resisted by the steel body of the fourth coach. The new British standard design takes full advantage of pressing and welding technique, and the welded attachment between body and underframe develops a combined resistance to longitudinal and vertical stresses, with body ends re-inforced by steel sections as an adjunct to the Pullman type gangway adopted in connection with Buckeye couplings. The underframes alone will be able to withstand a 200 tons end thrust without permanent deformation.

The Railway Executive had planned to accelerate earlier programmes covering track circuit and modern block control, later affected by the regrettable restrictions on capital expenditure rendered necessary by prevailing conditions. Such safety equipment, however, deserves a high priority, and this accident has again emphasised " the desirability of pressing forward with the work as rapidly as possible."

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

"Some Railway Shortcomings"

July 23, 1951

SIR,—I expect some of your readers will have been reflecting on the letter which you published last week from "Nemo," who you inform us is "a responsible railway officer." From his text he would appear to be a district rather than a headquarters officer (Regional or Executive), and while it occurs to me that some of your readers may be interested in my own thoughts on the subject, I do not intend to deal with each grievance, complaint or criticism that he has made. Every railway officer, myself included, will have his own views. With some of the points I could be in sympathy; on some I would suspend judgment; with some I would entirely disagree; while others have already been answered in your leading article. I would rather look at the broader picture, and perhaps may be forgiven if, after 27 years' varied experience before and since nationalisation, I feel able to see this picture from a better vantage-point than your correspondent's. To those who may have read the letter, and your thoughtful leading article upon it, I would therefore venture to offer the following advice:

(1) Remember that British Railways are but 3½ years old—no time at all in railway development. Let those of us (and I imagine your correspondent is one) who remember the painful beginnings of the L.M.S., L.N.E., and Southern Groups call to mind the heartburnings—in some cases, even, the personal animosities—and the upheavals, trials and tribulations of those amalgamations, and the years that it took before things settled down to a calmer atmosphere in which a South Western man was acceptable on the old South Eastern & Chatham, a London & North Western man *persona grata* on the old Midland, and so on. It is inevitable in such a process that loyalties should be strained and changes difficult to accept. A good deal of what was done then was "trial and error," and it was only gradually that the new systems were shaped to the highly efficient undertakings they became in the 1930's.

(2) We are now going through the process again; we have past experience to guide us, and the task is in that respect easier, although external difficulties are much greater. It is my belief that more progress has been made in the past 3½ years than most people realise. From the point of view of the human effect, however, the changes can still be acutely painful, and I can sympathise particularly with the feelings among some of the older G.W.R. men, who entered British Railways after their great company had enjoyed a proud and separate existence of over a hundred years. The emotions, ambitions, and disappointment of thousands of people inevitably make such changes as these with which we are concerned very difficult, but these difficulties will, I am confident, disappear as they did last time. Let those who have been concerned both with the grouping and with unification ask themselves honestly whether we have not made at least as good progress as our predecessors did in a corresponding period of time.

(3) If there are—as there must be in the midst of such changes—those who are disappointed or "frustrated," are there not many others to whom the new organisation has given fresh opportunities and advantages which they might not otherwise have enjoyed, or attained so early in their careers?

(4) I do not contend, of course, that everything on our railways is right, nor that there is not still a great deal to do, and some things, perhaps, to be done differently. Constant thought to the many and urgent problems before the industry is being given at the Railway Executive and in the Regions, and I would emphasise that the Chief Regional Officers and the heads of departments are fully consulted on all such questions, and full weight given to their great experience; thus may we become, as time goes on, a single well-knit organisation. For our present organisation is not necessarily fixed or finalised. In fact, it ought not to be, for "transport" management must, I think, be our final goal. Let each of us try therefore to think more of the railway service and less of self, and so set an example of hard work, self-discipline, and goodwill, so that in time new loyalties will build themselves upon the old.

(5) In all aspects of life we are living in an atmosphere of change, in which our railways are involved and will be, continuously, for many years to come. By experiment, by trial and error, with open minds and with our eyes kept firmly on the main objectives of better service to the public, of real confidence between management and staff, and of a transport service free from deficit (and so held in respect by public opinion) we shall, I firmly believe, find right and wise solutions to all our present problems; but it will need endless patience and understanding by everyone in the industry. These qualities have generally been conspicuous in the British way of life; we need them more than ever today.

(6) The simple fact is that there is now one railway, not four. In it, each one of us must strive to achieve the team spirit, and everyone (I mean literally everyone) has the opportunity to contribute something towards that.

Finally, may I take this opportunity to pay my tribute to the many railway officers up and down the country, and the thousands of railwaymen and women of all grades, who, often under great difficulties due to shortages of men and materials, are already making a real contribution to the lasting establishment of British Railways. To all of them I would say: "Thank you; your common sense and steady conduct are invaluable."

Yours truly,

JOHN ELLIOT,
Chairman, Railway Executive

222, Marylebone Road, N.W.1

Riding of Electric Express Trains

July 6

SIR,—I was much interested in Mr. Sorby's letter in your June 22 issue, and write to confirm what he says about the rough riding of the express trains on the Southern Region.

Although I have not been on the Eastbourne line recently, I am a constant traveller to the West Country and have repeatedly experienced the excessive oscillations that he mentions, particularly when travelling between Waterloo and just the other side of Woking. West of that point, where the electrified lines stop, the riding seems slightly better, though never as good as one would wish.

I am informed that the reason for the poor conditions of the permanent way on the electrified sections is primarily due to the heavy punishment it sustains as a result of the low centre of gravity of the motor-driven bogies, and vertically through the unsprung portion of the weight of their motors. The combined effect of these two forces—*plus* that due to the high acceleration of these trains—all have unpredictable effects on the permanent way, and it seems that the only way to obviate this would be a redesign of the motor bogies including some form of quill drive.

While this may explain the condition of the track on the electrified section, the design of the passenger coaches themselves would undoubtedly enter into the problem, and if the Southern Region coaches were contrasted for their riding qualities with the old London & North Eastern carriages, where Gresley's double-bolster bogie is standard, I think it would be found that this latter design would go a long way to obviating the rough riding of the Southern stock even on an inferior road.

On one or two occasions where the express in which I have been travelling were making up lost time excessive vibration took place and was everything that Mr. Sorby

mentions, for it did bring to mind the possibility of serious and even dangerous results if continued. Perhaps the relaying of these lines with the new standard flat-bottom rail, which as you know has already been started, may do something to overcome the rough riding on the present chaired road, and shows that the authorities are fully aware of the highly unsatisfactory conditions now existing on this main line.

Yours faithfully,

RICHARD E. PENNOYER

16, Three Kings Yard, Davies Street, W.1.

Economics of Long-Distance Electrification

June 19

SIR,—Dr. J. C. Read's comments in your March 9 issue on my article "Economics of Long-Distance Electrification," in your December 1, 1950, issue, came to my notice only today.

In reply I should like to point out the following:—

1. All the so-called "a.c. countries" operate—in addition to their invariably a.c. long-distance lines—considerable mileages of d.c. traction systems of all voltages (underground, elevated, suburban, and mountain railways, etc.).

2. The leading electrical manufacturers of those countries design, make, supply, and erect both d.c. and a.c. traction equipment of every description, and have wide, first-hand experience, both home and abroad, of the operation of such equipment. They are thus in a position to give an unbiased quotation on traction equipment for any system, and unbiased advice on the respective merits and demerits of the various systems.

3. Recent information and quotations for d.c. and a.c. traction equipment that came to hand—both British and foreign—prove conclusively that the comparative costs of the electrifications are substantially as shown in my article, also that the scope of the single-phase a.c. electrification schemes is continuously expanding into regions of higher traffic densities.

4. Less trouble is caused by a.c. than d.c. with telecommunications, and this fact is borne out by at least one large post and telegraph department having considerable practical experience with both systems.

Yours faithfully,

S. A. VINCZE

73, Karepa Street, S.W.1, Wellington, N.Z.

Refrigerated Vans in Patagonia

July 16

SIR,—In your issue of April 20, under Overseas Railway Affairs you publish a photograph of a refrigerator van, converted from a railcar, for the Patagonian National Railways ready for shipment, and the adjoining paragraph describes this as "converted from a single-unit Ganz diesel railcar of the General Belgrano Railway."

The photograph, however, depicts, I believe, the unconverted front end of one of the 99 Drewry railcars of the former B.A.G.S. and B.A.W. railways. The roof radiators, size, and position of the windows, shape of the front end, and the apparent length of the car would appear to confirm this. Unfortunately the bogies do not figure in the photograph to confirm my belief that your Argentine correspondent has been misinformed.

Of the original 99 Drewry railcars delivered in 1938-39 three were destroyed by fire in 1939 and another laid up after the bodywork had been severely damaged in a level crossing accident! The remaining 95 were still in service in 1950. They gave yeoman service right through the war, and many improvisations were resorted to when the supply of spares from home dried up between 1940 and 1945, but they did carry on.

Between 1945 and 1950, about 80 new or rebuilt 6LW Gardner engines were fitted, and most of the cars had run upwards of 800,000 kilometers in service. The two buffet cars were converted early on to first class cars as no suitable service could be found for their use as originally constructed. Six of the original luggage vans of the B.A.W.R. were converted to second class cars and used subsequently on the B.A.G.S.R.

In 1949 four of the passenger cars were transferred by sea to the Patagonian Railways to replace some single-unit Ganz cars already laid up. These Drewry cars proved so successful and popular in the far south, that pleas for more to be transferred to Patagonia proved embarrassing for the staff of the F.N. General Roca Railway (formerly the B.A.G.S.).

Yours faithfully,

H. MACINTYRE,
formerly Diesel Traction Superintendent, B.A.G.S. & General Roca Railway

2, Silverhill Drive, Bradford Moor, Bradford, Yorks.

Proposed Festiniog Railway Preservation Scheme

SIR,—The Festiniog Railway, one of the few existing un-nationalised railways which operated during the war, but unfortunately closed shortly after it, is, it is hoped, to have a new lease of life. An organised attempt is to be made to save it from being abandoned and its priceless historical relics lost to the scrap iron dealer.

The Festiniog railway is possibly the world's first narrow-gauge public railway. Locomotives introduced by Charles Spooner still exist after 83 years of hard work. In 1873 Spooner introduced the first bogie carriage to Great Britain. This still exists at the railway's famous Boston Lodge Works and is now 78 years old!

The warrant of abandonment applied for by the railway company has been refused by the Minister of Transport. A preliminary inspection of locomotives, and so on, is to take place, and it is hoped that a meeting will be arranged in the near future. I shall be pleased to hear from anybody interested in the scheme especially if they are in a position to help financially or professionally.

Yours truly,

LEONARD A. HEATH HUMPHRYS

31, Ashton Hill, Corston, Bath

Wagon and Train Loads

July 7

SIR,—In his letter in your July 6 issue Mr. Robert Bell quotes some interesting American railway operating figures, but his letter rather leaves the impression that heavy train loads *per se* necessarily impair mobility. It is the poorly-loaded, slow-moving feeder trains, with the appalling wastes involved in shunting and marshalling, which impair mobility, or, rather, destroy it.

Sir George Gibb and the really great operating men of all railways who were his contemporaries, lived in the age of *development* of the road motor vehicle, and some of them (notably Mr. Charles Aldington of the Great Western Railway) foresaw the part it could play in association, as well as in conflict, with the railways. They did what they could to further association as far back as the first decade of the century, but the complacent obscurantism of the age thwarted them, and they gave place progressively to what we now call the administrators, under whom financial considerations, instead of stimulating efficiency in the performance of the job, devitalise it.

Had the Gibbs and their like been in power in the early 1930's, they would have got rid of all this small-wagon, feeder-train, shunting-marshalling nonsense long before the second world war (and in my view shortened the war), and the railways, become the nation's transport service, would now have been in the heyday of their prosperity, road transport being both associated with and independent of them.

They can be still, but only when the spirit of the railwaymen who ruled in those earlier years scorches out defeatism in the high places they would have occupied.

Yours faithfully,

FREDERICK SMITH

65, Hallowell Road, Northwood

THE SCRAP HEAP

Mailed in Error

A mail train reached Whitby without mail or newspapers. It was sent from York before the mail van was attached. —*From the "Sunday Express."*

Railway Economies

The following has been sent us by a correspondent:—

"Scotsmen are noted for their ability to economise. Two items in recent issues of *The Railway Gazette* bear that out. Sir William Wood, in the June 15 issue, is quoted as saying about economies that 'those measured readily by monetary figures' amount to some £12·5 million a year. Mr. John Elliot, in the June 22 issue, is reported as saying, 'Over all the services in Scotland the annual saving was £12 million.'

"It would seem that Scotland has achieved more than its fair share of economising!"

Model Engine on View Again

In 1888 a fine ½-scale working steam model of North London Railway 4-4-0 tank engine No. 60 was built at Bow Works. Complete in every detail, and undoubtedly one of the most beautiful models of its kind, this engine was shown at the Paris exhibition the next year. For many years afterwards it stood at Broad Street Station, North London Railway, and eventually was connected to an electric motor installed in the base of its showcase, the insertion of 1d. in a slot bringing the wheels into motion. During the recent war the model was removed from Broad Street to Crewe for safety.

The model has now been thoroughly overhauled and restored by the London Midland Region to Broad Street, its spiritual home, where it will help to swell the funds of the Railway Benevolent Institution. The prototype of the model was built at Bow in 1888 (No. 205) under the superintendence of Mr. J. C. Park, and was one of the first of a numerous North London class first provided with cabs. No. 60 was rebuilt at Bow in 1904, and was given a new works No. 307, and after the L.N.W.R. took over the North London Railway on January 1, 1922, she was renumbered 2852. She became L.M.S. No. 6491 in April, 1927, and was broken up at Crewe two years later.

Pixies on the Line?

In the British Railways official timetable I find that the crack "Cornish Riviera" express of the Western Region arrives at St. Erth on Sundays at 5.48 p.m. It reaches its destination, Penzance, six miles farther on, at 9 p.m. I asked an official whether this was a go-slow attempt. He said it might be a misprint, or, on the other hand, it might be due to Cornish pixies having their Sunday evening out.—*"Peterborough" in "The Daily Telegraph."*

Brave Days

The Canadian National Railways is changing the name of its Cut Knife Station in Saskatchewan to that of Poundmaker. Poundmaker, one of the great Indian chiefs of the western plains before the prairie provinces were born, defeated Cut Knife, the Sarcee chief, in a battle long before the North-West rebellion. The reason for the change is a duplication of station names. The future Poundmaker is some 50 miles south-west of North Battleford.—*From "The Recorder."*

A Welcome Works Both Ways

British Railways offer a curious welcome to visitors from overseas. On every seat in the boat trains carrying them from the port to London is a pamphlet urging them to "Visit France." People land in a British ship at a British port and within a few minutes British Railways are pressing them to go across the Channel.

Some visitors suppose it is the work of a cunning agent of France. This is not so. British Railways tell me it is a bit of international public relations work. People travelling in French boat trains to Paris get pamphlets urging them to visit Britain: in our boat trains we tell them to go to France.—*From "A Londoner's Diary" in the Evening Standard.*

Classical Porters

The young porter who took my luggage at Kings Cross was not in uniform. "I'll just make sure of the platform," he said, as we entered the station. "You must forgive me, I'm not very familiar with the trains yet."

His accent and manner made me curious. He was, I discovered, an undergraduate, a budding architect, working for his A.R.I.B.A. examination, and making both ends of his university career meet by working in vacations. This practice has been common in the U.S.A. for a long time, and, I believe, among Highland students.—*"Atticus" in "The Sunday Times."*

"The Golden Arrow"

"Train of the diplomat—
Train of the elegant"
(Sagittarius in the "New Statesman & Nation")

Train of the diplomat
(Known by his Eden hat),
Train of the elegant,
Train of the smart;
Train of the Pullman seat
Cushioned for the *élite*,
Famed for exclusiveness,
Something apart.

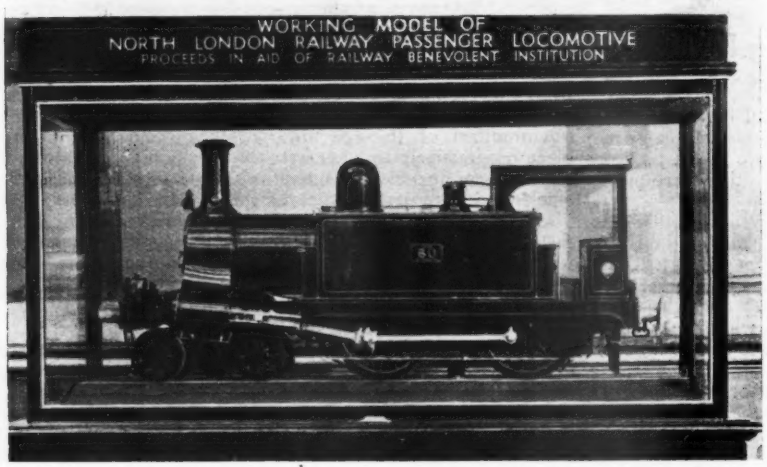
No classless nonsense here!
Keep up the atmosphere!
Even though common men
Can pay the fare.
Chased from their favourite haunt,
Might not the elegant,
Might not the diplomat
Travel by air?

Reply

Sharp-shooting Sagittarius,
Do I detect some animus?
You should applaud B.Rs' well-meant
Endeavour once more to present
To Britain's unaccustomed eyes
A flash of pre-war enterprise.
When you linked "hat" with
"diplomat"
I taut I taw a puddy-tat!
(We both could make a little list
Of some who never would be missed).
But elegance, I must maintain,
Can still be met with on the train.

Don't be so touchy, Sag, old boy—
Leave us a little travellers' joy!
Admitting your authority
On bows and arrows, you'll agree,
Whatever prejudice you hold,
This one, at least, is "in the gold."

SCORPIO



Working model of 4-4-0 tank engine No. 60 of the former North London Railway now at Broad Street Station (see paragraph above)

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Vocational and Welfare Officers

The post of welfare officer was created in 1927 to ensure the best and most economical use of European labour, to carry out the Government's policy of providing a wider field of employment for such unskilled labour, and bring about the more effective training of the staff. These officers were responsible for the recruitment of all staff for the service and were required to ensure, by means of regular visits to out-stations, that the members of the junior staff under their control were adequately trained and provided with an opportunity of qualifying for advancement to higher posts.

In 1941, when a special organisation was brought into being under the control of the Railway Health Officer for social and welfare work on a large scale among the railway staff and their families, it was decided to abolish the post of welfare officer. With the introduction of the trainee system in 1944, however, the allied post of training officer was resuscitated and officers were appointed to supervise the grounding given to trainees.

The great expansion in recent years in almost every sphere of the Administration's activities, and the growing need for more fully-trained staff, again brought into prominence the urgent necessity for making the best possible use of available manpower. With a view to more effective control the Administration decided to create the position of vocational and welfare officer. These officers pay personal attention to the recruitment and training of staff and thereby ensure a continuous and systematic development of the railworker and junior staff establishment.

In addition, these officers give the staff at out-stations guidance on vocational and kindred matters through personal contact. A vocational and welfare officer has been appointed on the staff of each System Manager, the Chief Civil Engineer, Johannesburg, and the Chief Mechanical Engineer, Pretoria, and at Railway Headquarters, Johannesburg.

UNITED STATES

Milwaukee Yard Improvements

The Chicago, Milwaukee, St. Paul & Pacific Railroad is to spend approximately $3,000,000 on a wagon retarder and signal system in its eastbound yard in Milwaukee. The area, known as Air Line Classification Yard, will be reconstructed to provide for continuous forward movement of wagons by gravity.

Electro-pneumatic retarders and points will control the speed and direct the movement of wagons. The yard, as well as the incoming and departure tracks, will be equipped with a radio system to dispatch movement of engines, a paging and "talk-back" loudspeaker system to direct activities of staff on the ground; a teletype communication system to transmit information concerning consignments; a pneumatic tube system to transmit waybills and other records; and a tape wire recording system to record location and make-up of wagons in trains. There will be a pit to enable wagons running gear to be inspected, an oiling system to ensure journal box lubrication, and a flood lighting system for night operations.

Preliminary work on the installation is to begin immediately and the project is expected to be completed next year.

Record Motive Power Orders

Class I railways on June 1 established a record in the amount of new locomotive power on order. On that date, they had 1,839 new locomotives on order consisting of 2,454 power units.

While the number of complete locomotives on order on June 1 was slightly less than on April 1, the increase in the number of power units resulted from the fact that all of the locomotives were diesel-electric except sixteen steam and three electric; the diesel-electrics included a larger number of road locomotives which generally consist of from two to four separate units coupled.

In the first five months of 1951, Class I lines put 1,055 new locomotives in service, of which 1,048 were diesel-electric, six steam, and one electric. In the same period of 1950 there were 922 installed in service; these included 918 diesel-electric and four steam locomotives.

ARGENTINA

Accidents

Two accidents took place in June. The first was a collision between the sleeping car express "Rayo de Sol" of the General Mitre Railway from Córdoba to Buenos Aires and a goods train standing in Tortugas Station. Several wagons of the latter were destroyed and the postal van of the express was telescoped, but there was only one death and one case of serious injury. A more serious accident took place at Hipólito Irigoyen, on the General Roca Railway, when a suburban train from Plaza Constitución to Temperley crashed into the rear of another to San Vicente which was standing at the platform. Seven persons were killed and 52 injured. The latter accident is attributed to overrunning of signals in dense fog.

Railway Strikers Pardoned

A Government decree has been issued pardoning some 600 railway employees involved in the recent strikes who had been dismissed and prosecuted for infringement of the law concerning strikes.

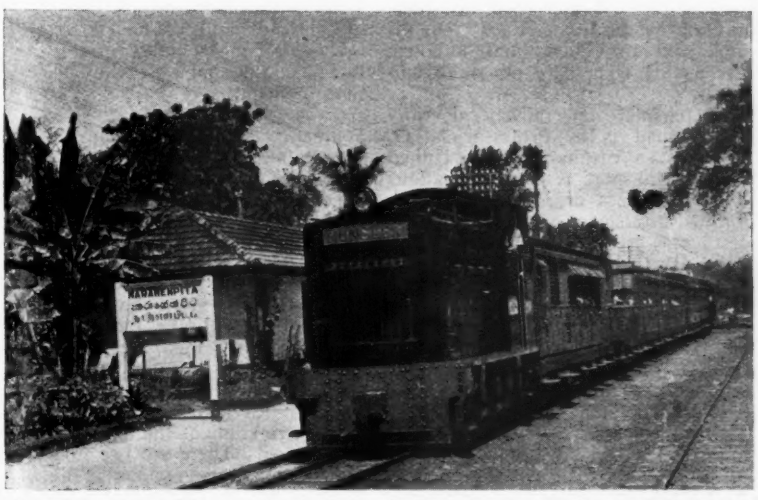
CANADA

C.N.R. Five-Year Buying Plan

Present and anticipated restrictions on steel and other materials have led the Canadian National Railways to plan equipment requirements for the next five years.

The company has recommended that a five-year basis equipment purchases should normally include the acquisition

Diesel-Hauled Train in Ceylon



Diesel-mechanical locomotive built by the Hunslet Engine Co. Ltd. hauling a passenger train on the 2 ft. 6 in. gauge section of the Ceylon Government Railway at Narahenpita

of 4,360 new freight wagons a year. Of this number some 2,500 off-set annual retirements. The figure also would include 1,860 wagons, expected to accommodate an estimated 10 per cent. increase in traffic at the rate of two per cent. a year during the next five years. Approximately 30 baggage cars a year would be needed to provide for average annual retirements and to bring this class of stock to approved passenger train standards.

The company could not predict exactly its motive power requirements, but after taking various factors into account, the management recommended that orders be placed immediately for 24 road diesel locomotives and 25 diesel shunting units to form the 1952 part of the five-year programme.

The House of Commons has dealt with resolutions to two bills dealing with financing operations of the C.N.R. which were introduced and given first reading. One provides for the refunding of $200,000,000 of Canadian National Railways securities to mature or be called between 1951 and 1955. The second authorises the C.N.R. to make capital expenditure of up to $97,737,000 and increase working capital by $20,000,000. The bill would also allow the railway to make commitments this year of up to $111,512,920.

IRELAND

Improved Station Restaurants

Work will begin shortly on improvements to a number of C.I.E. station refreshment rooms and bars, while the new dining rooms and lounges at Cobh, where work is well advanced, are expected to be completed by the end of August. The proposals for the reconstruction at Westland Row are the most extensive of those on hand, involving a complete change in layout of refreshment rooms and bar. There will now be a more brightly lit and larger restaurant equipped with tables, chairs, and a snack counter. The bar will also be greatly enlarged and built-in seating provided. Work will commence when the heavy holiday traffic eases. Improvements are to be carried out also at Mullingar, Athlone, and Claremorris.

FRANCE

Revised Goods Rates

Revised goods rates will come into force on the National Railways on August 1, in accordance with the scheme of goods rates reforms proposed by the railways with a view to the application of the Government decree on road-rail co-ordination.

Dunkirk-Thionville Electrification

According to a recent announcement by Monsieur Pinay, the French Minister for Public Works & Transport, electrification of the Dunkirk-Hazébrouck-Lille-Aulnoye-Mézières-Thionville line, in the Northern and Eastern Regions, is being studied by the French National jointly with the German Federal Railways. This 250-mile section is said to be of particular interest as a link in the connection between the Atlantic coast and Western Germany; from Thionville two routes lead into Western Germany, *via* Trèves (Trier) to Koblenz, and *via* Saarbrücken to Mainz, Mannheim, and beyond. In addition, it links the coalfield of Northern France with the steel industry in Lorraine and Luxembourg.

Road-and-Rail Tours

As an experiment in international combined road-and-rail tours, the National Railways in conjunction with administrations in other countries have placed the motorcoaches of its subsidiary the S.C.E.T.A. (Société de Contrôle et d'Exploitation des Transports Auxiliaires) in a pool for this purpose. The first experimental trip is from Paris to Ostend and Amsterdam.

Higher Paris Metro Fares

In view of the considerable deficit in the Paris transport services (Régie Autonome des Transports Parisiens) which reached some fr. 3,500 million (approximately £3,571,000) for the first four months of the current year, it is expected that a further increase in fares will be unavoidable. It is suggested that the Métro single fare is to be fixed at fr. 3 for the second class, and the lowest bus fare fr. 1·50.

U.S.S.R

Refrigerator Trains

Fifteen refrigerator trains, claimed to be the first of their kind in the world, are reported to have been built by engineering works in the Soviet Union. Each train consists of three 50-ton wagons incorporating a powerful compressor, two electric power stations, and special installations for producing low temperatures.

Publications Received

Your British Railways. London: The Railway Executive, 222, Marylebone Road, N.W.1. 13 in. × 10 in. 48 pp. Fully illustrated. Paper covers. Price 2s.—This book, which gives in popular style an account of the organisation behind British Railways services, is now on sale at railway bookstalls. Elsewhere in this issue editorial reference is made to the book, which is largely pictorial.

Handbok I Samfärdselteknik. Stockholm: Bokförlaget Natur och Kultur. 10¼ in. × 7½ in. 504 pp. Illustrated. Price Kr. 55.—This is the first, dealing with railways, of a series of three volumes covering all aspects of transport. Mr. Tage Berge, of the State Railways, contributes five of the fourteen main chapters. Although there are ample references and, in fact, entire chapters on railways abroad, the book is predominantly concerned with Swedish railways. In this respect it appears to be comprehensive, except that urban underground railways have been relegated, perhaps not quite logically, to the road transport volume.

The chapters deal with railway history in general and Swedish railway history in particular; with railway construction and permanent way; signalling; telecommunications; electric railway operation; rolling stock; rolling stock maintenance; stores organisation; operating organisation; freight traffic and charges; passenger traffic and charges; railways and road transport; and railway ferries. Each contains ample text and illustrations, although their quality is perhaps not quite uniform.

The chapter on railway development abroad is by Professor N. G. Ehrnrooth, a member of the United Nations Transport & Communications Division. It is distinguished by an informed assessment of the relative importance of private and State enterprise in the development of railways, but is not free from errors in factual details; for instance, the caption to an illustration of the rear end of the "Coronation" is described as a "motor train." Another error is the statement that British coaches are still to a great extent lit by gas, and that there are no third class sleeping cars.

The Lubrication of Steam Turbines.—The laboratories of the Shell Petroleum Co. Ltd. in this country and overseas have played an outstanding part in the development of oils that will allow the modern high-efficiency steam turbine to develop its capabilities to the full. This book, which is published by the firm, covers, among other matters, selection of turbine oil and service performance, methods of lubrication and the design of pressure circulating systems, the changing and purification of lubricating oil, causes and remedies of operating troubles, and so on. Included in the book are many diagrams of equipment.

Southern Railway. Madras, India: The Public Relations Officer, Southern Railway. 8¾ in. × 5½ in. Illustrated. Papers. No price mentioned.—This well-produced booklet contains portraits of and addresses by, or messages from, the President of the Republic of India, the Prime Minister, the Governors of Madras and Bombay, the Minister for Transport & Railways, India, the Chief Minister of Madras, the Minister of State, Transport & Railways, India, and the first General Manager of the Southern Railway, on the occasion of the inauguration of the Southern Railway system. There are two maps, one showing its three regions in different colours, and the other the constituent railways; both show the different gauges. Five good illustrations of the Southern and constituent railway headquarter buildings complete the booklet.

Terminal Freight Handling

Summary of productivity report on the use of mechanical appliances in the U.S.A. with special reference to economies and efficiency effected

THE productivity team which visited the United States in June, 1950, under the leadership of Mr. A. C. B. Pickford, Executive Officer (Terminals), Railway Executive, to study methods practised in the use of mechanical equipment and terminal layout in the U.S.A., has issued its report* and this was published on Monday last. Members of the team comprised representatives of management and the trade unions, including the Railway, the Road Haulage, and the Docks & Inland Waterways Executives of the British Transport Commission, together with representatives of non-nationalised road and dock organisations.

In any comparison of transport features between America and Britain, states the report, there must be regard to fundamental geographical and economic differences. The introduction of mechanical equipment is a more economical proposition in America, not so much because of any wide difference in capital cost, but primarily due to the higher wages paid to transport operators there.

Palletisation

Pallets are extensively used in domestic operations by private firms and transport interests in America to promote rapid handling, to reduce physical effort and costs, and to secure the best use of operational and storage space. Their use is growing. Generally, however, the use of permanent pallets is confined to such domestic operations, pallets being retained within the building or plant.

Enquiry was made as to why it was not practicable to extend the use of the pallet for the throughout journey and thus to avoid manhandling of separate packages in de-palletisation on despatch and re-palletisation on receipt. The following points were mentioned in reply:—

1. Firms use the size and type of pallet to suit their internal operational requirements and this is not necessarily suitable for throughout transit.
2. The necessity of providing additional stocks of pallets and of strapping or spot-gluing goods on to the pallet.
3. Difficulties of retrieving pallets and expense in maintaining records.
4. Freight rate on weight of pallet with load and on returned empty.
5. Conditions of sale of merchandise.

In consequence, few examples of traffic passing on permanent pallets for throughout transit were seen, although the tour embraced some of the largest road and rail depots in America. At a number of assembly plants, however, in addition to a small proportion of traffic on permanent pallets, full loads (rail and road) were received on expendable pallets, which usually comprised component parts loaded and strapped on crude pallets to enable a pallet truck or fork truck to discharge the loads from the vehicles. In some cases the principle of palletisation was economically achieved by the insertion of battens, secured by metal straps or wire, beneath the unit load.

The general view is that, as the cost of permanent pallets is from $2.50 to $4.00 each, the solution lies in the development of an expendable pallet able to convey an economic load. This accounts for the increasing use of expendable pallets and for the intensive research and experiment now proceeding to develop this type. Some firms have already demonstrated the advantages of the expendable pallet from the cost aspect. Considerable progress is being made in the elimination of pallets by the development of unit loads and the strappings or gluing of the packages.

Standardisation

The desirability of standardising sizes of pallets has received a good deal of consideration in America as in Britain. The American National Bureau of Standards, which has investigated the possibility of such standardisation, proposed two standard types, 40 in. × 32 in. and 48 in. × 40 in. It is appreciated, however, that in any consideration of standards length of vehicle must be a factor.

An important and often decisive factor in determining the use of pallets for transport purposes, as distinct from domestic plant and warehouse operation, is the transport charge on loaded and empty pallets.

The practice on British Railways is to charge on the basis of the gross weight of the consignment, *i.e.*, including the weight of the pallet, according to the classification of the goods, while empty pallets are conveyed at the "returned empties" scale.

In America the same basis is used for loaded pallets, *i.e.*, to charge on the gross weight of the consignment and pallet at the applicable classification. On returned empty pallets the general practice is to charge at lumber rates, which apparently are broadly equivalent to the "returned empty" basis in Britain.

A good deal of publicity in America has been given to the request for concessions to be made by road and rail carriers in the charges for pallet conveyance. These demands have not been conceded by American railways, which consider that, while the use of pallets facilitates handling, the main advantages are secured by shipper and customer in domestic factory, plant, or warehouse operation.

There is no doubt that, if it were practicable to establish pallet pools, either on a national or trade basis, advantages would accrue from the common user of pallets by the possibility of bulk purchasing, centralising repairs, minimising returned empty conveyance, etc. In Britain thought has already been given to such a scheme, but considerable difficulties arise by reason of the heavy cost involved in purchasing pallets to start the pool, complication where pallets are retained on senders' or consignees' premises, and extensive recording, accounting, and documentation necessary.

The extent to which Britain can secure advantages from palletisation depends on the prospects in two main directions: (*a*) whether traders are prepared by arrangement to increase the palletising of their commodities for transport, and (*b*) the domestic use by transport providers of pallets and equipment to facilitate their own handling operations of all types of traffic in freight depots. This inevitably raises problems of economics.

Mechanical Appliances

A variety of types of mechanical equipment was seen and many of these are already in use in Britain. There is little difference between such equipment manufactured in either country today. Considerable thought has been given to the design of fork trucks suitable for working in conjunction with rail and road vehicles.

The increasing use of fork trucks in America has produced a real problem in regard to the strength of floors of rail and road vehicles. On the railways, wagons of recent construction have strengthened underframes and are provided with laminated flooring in which two layers of hardwood boards cross one another at right angles. Floors of this type, in good condition, are permitted to carry fork trucks up to 4,000 lb. capacity.

Conveyors

The drag-line type of conveyor was in use at nine of the places visited, mainly to deal with small and medium-sized packages corresponding with "parcels" traffic in this country. The drag-line consists of a continuous chain, either overhead or beneath the floor, to which are attached, as required, four-wheel trolleys. The circuit generally covers the whole length of the platform accommodation so that when a trolley is attached it will pass all vehicle bays.

The method of attachment, in the case of the overhead drag-lines, varied from place to place, some employing rigid masts permanently attached to the conveyor trolleys, while others had telescopic masts which could be raised to engage with the conveyor. One trader

* "Freight Handling." Published by the Anglo-American Council on Productivity, 21, Tothill Street, London, S.W.1. Price 2s. 6d.

had abandoned the use of telescopic masts, because they were found to be susceptible to damage and bending, and had replaced them by a hook-and-chain arrangement. All three methods appeared to give satisfactory results.

There would appear to be a reasonable prospect, in suitable conditions, of securing greater efficiency and economy by drag-line operation, with its relatively low initial maintenance and running costs, as against payment for porterage and/or tractors *cum* drivers, to convey traffic from point to point in a depot or shed. Regard must be had, however, to other factors, such as the need to provide that portion of the depot accommodating the receiving units—road or rail—with additional staff to ensure that the appropriate drag-line trolleys can be detached as they approach.

Most large railway freight sheds possess a comprehensive selection of two-, four-, and six-wheel trolleys, known locally as "dollies," constructed to convey special types of heavy traffic such as glass in crates, carboys of acid, barrels and drums, steel plates, heavy machinery, and so on. Some of the dollies used for glass are of tubular construction capable of being towed by tractor.

Containers

While in Britain there is an appreciable and growing use of freight containers capable of being transferred by means of cranes between road and rail vehicles with, among other advantages, the avoidance of intermediate handling of individual packages and saving of packing, containers are not used to the same extent in America. As an illustration, although British Railways have handled annually over 10,000 household removals by means of containers collected by road vehicle from the house and transferred to rail vehicle chassis, the American railways generally have relinquished such business to road hauliers.

American practice now inclines towards the use of containers of smaller type, examples of which are the magnesium-aluminium alloy containers, used for less-than-car-load traffic, and operated by the Missouri Pacific Railroad, portable iceboxes, with a capacity of 1,200 lb., and small containers on wheels for parcels traffic.

Comparisons on broad lines of respective layouts of rail, road, and dock terminal depots did not reveal any fundamental differences between the two countries. So far as rail depots are concerned, of those stations visited, the rail freight depot usually consists of inbound and outbound sheds between which are laid a number of sidings, with or without intervening platforms, on which the incoming and outgoing rail vehicles are accommodated.

On the subject of rail layout and operation, interesting exchanges of views took place with American railway officers, during which some features of British practice were outlined. Preference is shown in America, so far as trucking bridges over rail tracks are concerned, for the vertically-hoisted type in which the bridge is slung on wire ropes at each corner and hoisted by electric power.

The modern tendency in the construction of distribution centres and warehouses was towards single-storey buildings with the minimum number of pillars in the floor area and well adapted for the free movement of fork trucks and the stacking of traffic to a reasonable height.

The railroad unions do not favour bonus schemes and efforts by management to introduce such schemes have usually been rejected by the staff. Where bonus schemes do operate the same general methods of evaluation and application may be said to apply in both countries.

Terminal Wagon Situation

In view of the importance in Britain of a sufficiency of railway freight rolling stock to meet seasonal peak requirements of industry and the special attention which has been focused in recent years on increasing wagon availability, enquiry was made as to American systems of control on the terminal wagon situation. In the U.S.A. there is no index of terminal user time.

Careful attention is given to utilisation for outward loading of wagons belonging to the railway to which traffic is destined, and to avoidance, as far as practicable, of unnecessary empty haulage. Owing to the population and production concentrations throughout America, with unbalanced trends and flows of traffic and long distances traversed, empty movement of wagons for 2,000 miles or more is not uncommon, particularly to meet requirements for grain, livestock, and lumber.

The existence in Britain of a single pool of freight rolling stock under unified control for daily distribution purposes, with a national index of actual time at terminals, differs materially from American practice and records, and no real comparison of the kind desired is therefore practicable. As far as it is possible to relate terminal times in the respective countries, the average time wagons are held under load at terminals in Britain is appreciably less than in America.

Conclusion

The marked machine-consciousness in America finds expression in the provision of some form of mechanical means for freight handling wherever practicable as part of the basic equipment of the plant or depot. The use of mechanical equipment is both encouraged by managements and generally accepted by employees.

While there is little difference between Britain and America in the capital cost of the more general types of mechanical equipment for the handling of freight, wages there are much higher, and in consequence the greater potential saving in wages affords more scope to the Americans for the employment of mechanical appliances.

Apart from particular refinements and gadgets, and the use of drag-lines referred to, no types of mechanical equipment were seen in use in America for freight handling which are unknown in Britain. Despite longer experience, moreover, progress towards standardisation of pallet sizes is no greater than here.

Recommendations

The main recommendation—which must necessarily be in general terms—is that all transport interests, including docks and harbours concerned in the handling of freight, and industries or firms dealing with the movement of appreciable tonnages of traffic, should intensify their enquiry and research into the scope for increased use of mechanical equipment.

Particular emphasis is laid on the potentialities in general transport use afforded by:

1. Fork-truck operation, either with pallets or, for suitable traffics, pusher or specialised attachments on the fork trucks;

2. The development of palletisation and the unit load for throughout transport;

3. The drag-line method of mechanising transport depots.

Trade unions should encourage the development of "machine-consciousness" among their members and should co-operate actively, and earnestly at all levels with local managements in the introduction of mechanical equipment for freight handling. Equally, managements should endeavour, by giving a clear explanation of their intention to mechanise, to persuade their employees readily to accept the new methods.

Although the extension of domestic palletisation to throughout transport is being actively pursued by separate sections of the transport industry in Britain, it is suggested that consideration be given to the establishment of a Central Committee consisting of representatives of railway, road transport, and dock interests, manufacturers, traders, the British Standards Institution, and the Services, in order, *inter alia*, to secure the fullest exchange of information and experience on palletisation, to pursue prospects of development, and to consider issues of principle.

The Central Committee should have as its principal objective the stimulation of the development of palletisation. For this purpose it is suggested that it should particularly investigate and report on:—

1. Methods of promoting the maximum adoption of palletised or unit loads for throughout transport.

2. The best means of securing some standardisation in pallet sizes for throughout transport, having regard to the convenience of both the users and the providers of transport.

3. The effect of palletisation on the packing and handling costs of manufacturers, traders, and transport providers.

In this connection regard should be had to the benefit accruing to the respective interests concerned in throughout transits.

Sleeping Cars for Portuguese East Africa

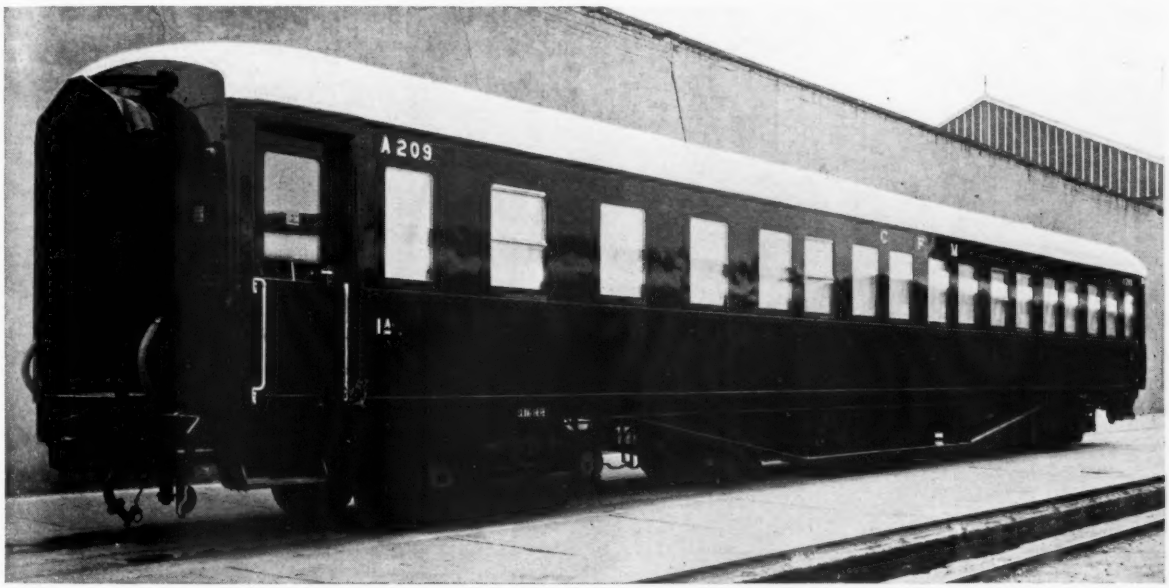
First and second class accommodation for day and night use

ELEVEN bogie sleeping coaches for the 3-ft. 6-in. gauge tracks are being put into traffic at the present time by the Mozambique Railway (Caminhos de Ferro de Moçambique, or C.F.M.), and comprise six cars with first and second class berths and five cars with first class berths only. All were built by La Brugeoise, Nicaise & Delcuve, of Bruges, and were shipped with the body and underframe complete, and with the bogies as separate pieces.

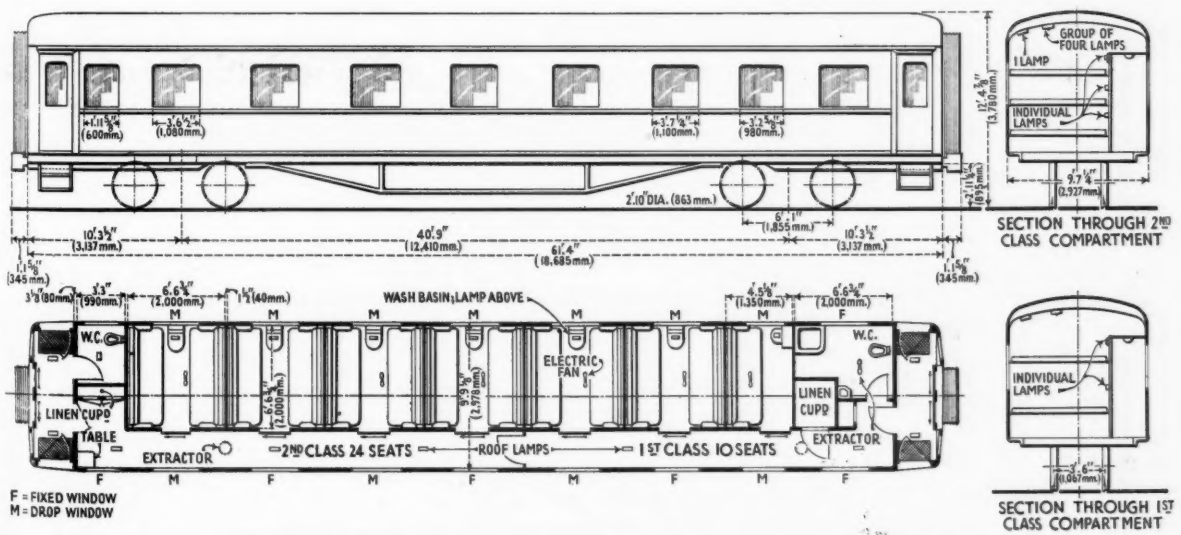
As shown in the accompanying diagram, the second class accommodation is in the nature of *couchettes*, with three berths one above the other and two tiers in each compartment. The first class compartments have four berths with one double-berth compartment at one end. These cars are convertible for day or night use, and sleep the same number of passengers as they seat. There is lavatory accommodation at one end and a w.c. at each end; but every compartment is equipped with a small washbasin.

Special attention has been paid to ventilation by means of an electrically-driven fan and two extractors in each compartment and extractors in the corridor. The first class coaches are arranged in similar fashion, with five four-berth and three two-berth compartments, giving sleeping accommodation for 26 persons, but these particular coaches have the important difference of being fully air-conditioned on Stone's system.

Length over headstocks is 18·685 m. (61 ft. 4 in.) for the composite coaches and 20·2 m. (66 ft. 6 in.) for the first



Air-conditioned sleeping car, weight 38 tons, for the Mozambique Railway



Arrangement of 3-ft. 6-in. gauge first and second class composite sleeping car

class vehicles. The bogies of both types are the same, with a special double suspension comprising full elliptic and helical steel springs, and evolved by the car builder. These bogies have 863 mm. (34 in.) wheels spread over a base of 1·855 m. (6 ft. 1 in.), and are pitched at 12·41 m. (40 ft. 9 in.) pivot centres in the composite cars and 13·925 m. (45 ft. 8 in.) in the case of the first class coaches.

Bodies and bogies are of riveted construction in steel, but with aluminium side panels. The underframe is of conventional queen-post truss type and carries an Atlas coupler and Miner drawgear at each end. The wheels are tyred, with cast-steel centres, and the plain-bearing axleboxes run on journals 5½ in. dia. by 11 in. length. Tare weight of the composite coach is 37 *tonnes*, and of the first class sleeping car several tons more.

Interior of four-berth first class compartment of sleeping car on the Mozambique Railway

Accident to the "Irish Mail"

Aerial view of the wreckage of the "Irish Mail," which collided with a light engine at Penmaenmawr on August 27, 1950; a summary of the inquiry into the accident appears on page 105, with editorial comment on page 89

New Vessel for Harwich-Zeebrugge Train Ferry Service

Three train ferries now operate on this British Railways route for merchandise only

A NEW vessel, m.v. *Norfolk Ferry*, which was launched at Clydebank on March 8, entered British Railways train ferry service between Harwich and Zeebrugge on July 17. The number of vessels on this service, which is exclusively for the conveyance of merchandise, was thereby increased to three.

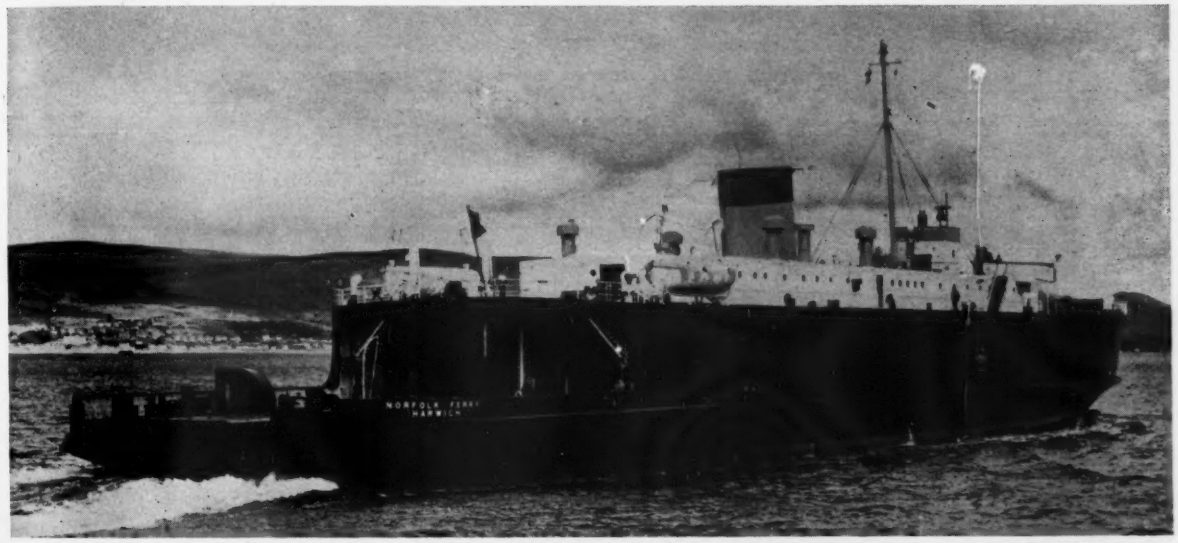
At the outbreak of war in 1939 the three vessels then in service on the Harwich-Zeebrugge route were requisitioned by the Government for the conveyance of ambulance trains and military stores, and later were taken over by the Admiralty. Two of the vessels were lost, as a result of enemy action, and the third, the *Essex Ferry*, after re-conversion, resumed sailings on the Zeebrugge-Harwich route in August, 1946. A second vessel, the *Suffolk Ferry*, was subsequently built, and when it went into the service in September, 1947, daily sailings were resumed.

During certain periods of the year, however, one sailing a day in each direction was insufficient to meet the traffic, and it has been necessary to increase the number of sailings during the summer. As a result the *Norfolk Ferry*, a motor vessel which is similar to the *Suffolk Ferry*, was built by John Brown & Co. Ltd. The introduction of the new motor vessel will enable the number of sailings to be increased and, consequently, a greater number of wagons to be moved in a shorter time than is at present possible.

Following experience with the *Suffolk Ferry*, the new ship has a similar form below the waterline, though the forward superstructure has been modified. A feature of the design already applied on the *Suffolk Ferry*, is that the upper deck, which extends for almost the whole length of the vessel, serves as a cover for the train deck, on which the rail vehicles are secured. Four lines of track are provided for the accommodation of freight wagons on a deck constructed to be capable of supporting the heaviest type of modern locomotive. These lines converge into two embarkation tracks at the after end of the vessel only, the forward end being of the normal ship's form. As in the *Suffolk Ferry* the side tracks are 223 ft. long and the centre tracks 340 ft., giving a total of 1,126 ft. The number of wagons which can be accommodated varies according to the size of wagon used, but the average number conveyed is between 32 and 38.

Officers and crew are accommodated on the upper deck; in addition, six two-berth cabins are set apart for the use of passengers. The vessel has the following principal dimensions:—

Length (overall)	397 ft. 6 in.
Length (between perpendiculars)	380 ft.
Breadth (over fenders)	61 ft. 6 in.
Depth (to upper deck)	34 ft. 9 in.



M.V. "Norfolk Ferry," which is now in service on the Harwich-Zeebrugge train ferry route, on trial at Clydebank

Propelling Machinery

The *Norfolk Ferry* is a twin-screw vessel designed to maintain a service speed of 13 knots when fully-loaded. The main propelling machinery consists of two Brown-Sulzer trunk piston engines, each having six cylinders and developing about 1,465 b.h.p. at 200 r.p.m. The cylinder dia. is 480 mm. and the piston stroke is 700 mm. The pistons are cooled by lubricating oil, discharged to the crown by stand pipes. Cylinder jackets and heads are normally cooled by fresh water, but provision is also made to circulate sea water in an emergency.

The engine control station is at the forward end of the engine and consists of a fuel regulating lever fitted with a small handwheel, operating a bevel gear transmission to a worm shaft, so enabling fine control of the engine speed to be obtained.

As auxiliary machinery three Davey Paxman four cylinder diesel engines are installed, each driving a 125 k.W. 220 V. generator at 600 r.p.m. Because vessels of this type have to do a considerable amount of manœuvring when entering or leaving harbour, an adequate supply of starting air is essential, and the vessel is supplied with three Reavell two-stage air compressors, each capable of supplying 100 cu. ft. of air per min. at 450 lb. per sq. in., when driven by a 47-h.p. motor at 600 r.p.m. Two large air receivers of 165 cu. ft. capacity are accommodated at the forward end of the engine room.

Three Drysdale Vertoil pumps of 53 tons/hr. capacity are supplied for the forced lubrication system, these pumps also circulating the piston cooling system.

Work is about to commence on the construction of a new terminal for the train ferry vessels in the outer harbour at Zeebrugge. This will avoid the necessity for passing through the lock, and so reduce voyage time by about two hr. in the round trip, and eliminate delays resulting from the heavy user of the bridges which pass over the lock. The new terminal is expected to be ready in the summer of 1952.

New German Standard Locomotives

Two tank and one tender type constructed by five builders

THOUGH many thousands of new locomotives were built in Germany during the war, when the German Federal Railways (Deutsche Bundesbahn) was formed it had a serious shortage of motive power. The general economic situation did not allow it to order a large number of new locomotives, and even if it had, the physical condition of the German locomotive building industry could not cope with new construction, as its practical capacity was fully engaged in heavy repairs to existing steam locomotives.

Hence it is only within the last nine months that entirely new locomotives have been completed, though in 1945-47 Henschel and Maschinenfabrik Esslingen were able to complete nearly a score of freight locomotives under construction at the time of invasion. These were wartime designs; the 75 locomotives completed within the last ten months are to new standard designs.

The general lines of the new standards were drawn up by the Zentralamt at Minden, and the details worked out by the staff there in collaboration with the various German builders. In principle, 15 new standard types of steam locomotives were adopted and preliminary designs prepared. Construction of only three classes has been sanctioned so far; and the growing attention paid to diesel trains and the Uerdingen railbus for passenger traffic, and new diesel locomotives for shunting and freight trains, may delay, if not eliminate, the construction of some of the other 12 steam standard types.

Construction has been confined to Class "23" of 2-6-2 wheel arrangement; Class "65" of the 2-8-4T type; and Class "82" of the 0-10-0T type. In 1941 two 2-6-2 locomotives classified as "23" were built, but the new locomotives are quite different except for the wheel arrangement and the provision of two outside cylinders. Those two locomotives have disappeared into Eastern Germany and so the early Class "23" is non-existent.

The orders now completed comprise:

25 Class "23" 2-6-2	...	15 by Henschel
		10 by Arn. Jung
13 Class "65" 2-8-4 tank	...	13 by Krauss-Maffei
37 Class "82" 0-10-0 tank	...	22 by Krupp
		10 by Henschel
		5 by Mfbk. Esslingen

In power and general capacity, the Class "23" locomotives were intended to replace the older 4-6-0 engines of Class "38" and all of the new engines are now in traffic on the Munich-Kempten-Lindau line. The new Class "65" 2-8-4 tanks were considered as replacing old "93" class engines; and the ten-coupled tanks of Class "82" replace old locomotives of Classes "94" and "87."

Leading dimensions of the three new types are given in the table below.

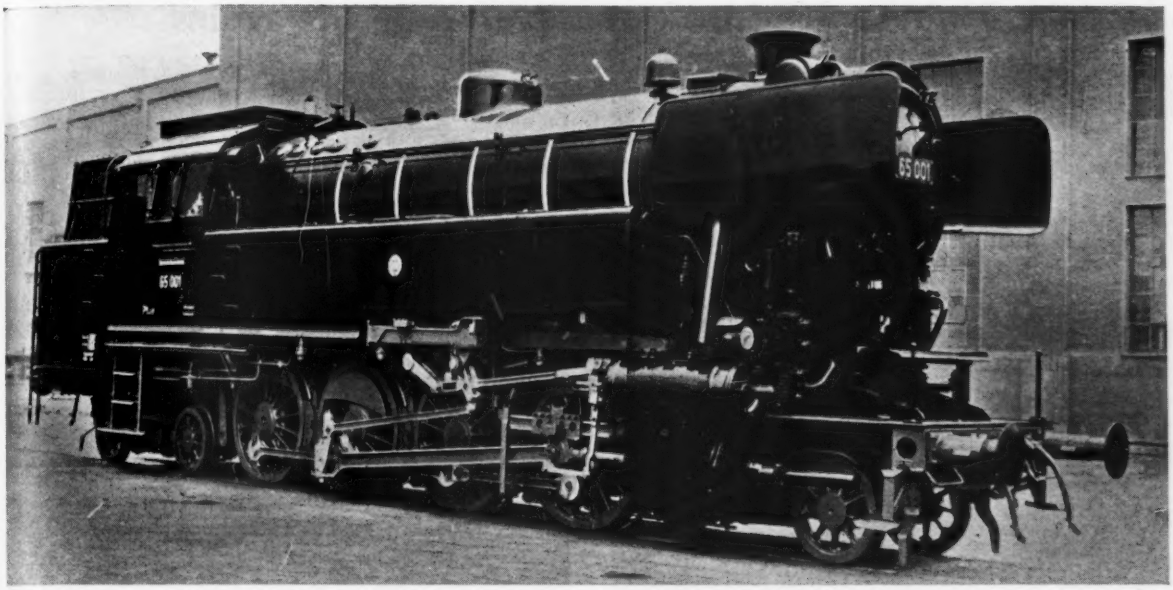
Standardisation of details is a characteristic, but does not extend to boiler dimensions, wheel centres, tyres and so on, though those used in each class will be used in one or more of the other new standard designs drawn up after the war. The most prominent common feature of all three classes is the completely welded boiler. A welded boiler in itself is still a novelty, taking world practice as a whole; that it should be included in three different types built by five different makers is remarkable. In all cases each weld in every boiler is inspected radiographically, but no stress-relieving is carried out either locally or throughout the boiler as a whole, the welding technique having been evolved and developed to obviate the need for this.

Class "23" 2-6-2 passenger locomotive

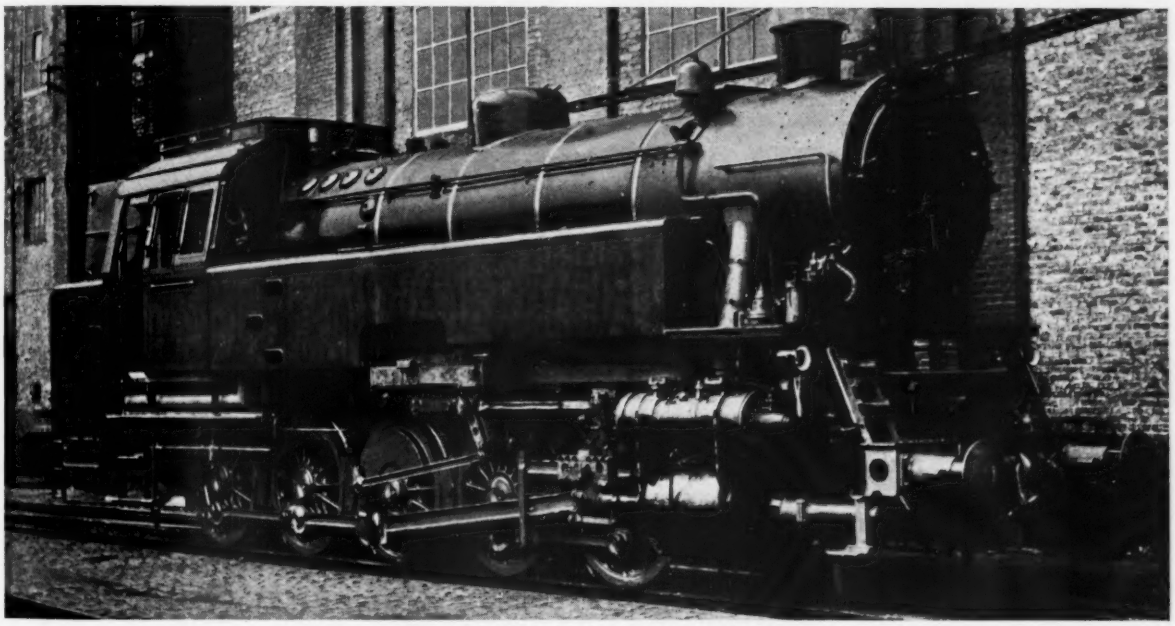
LOCOMOTIVES

Class	23	65	82
Wheel arrangement	2-6-2	2-8-4T	0-10-0T
Cylinders ... ... mm. (in.)	550 × 660 (20·6 × 26)	570 × 660 (22·5 × 26)	600 × 660 (23·6 × 26)
Coupled wheels, diameter mm. (in.)	1,750 (69)	1,500 (59)	1,400 (55)
Boiler pressure ... kg./sq. cm. (lb. per sq. in.)	14 (200)	16 (227)	14 (200)
Evaporative heating surface m.² (sq. ft.)	156 (1,681)	140·5 (1,509)	122·2 (1,315)
Grate area ... ... m.² (sq. ft.)	3·1 (33·5)	2·66 (28·6)	2·35 (25·3)
Superheating surface ... m.² (sq. ft.)	74·0 (794)	62·5 (677)	51·9 (557)
Weight in working order ... *tonnes* (tons)	147½ (145)*	108 (106¼)	92 (91)
Adhesion weight ... ... *tonnes* (tons)	51 (50¼)†	66 (65)	92 (91)
Water capacity ... ... m.³ (gal.)	31 (6,820)	14·2 (3,180)	11 (2,320)
Coal capacity ... ... *tonnes* (tons)	8 (7·87)	4·8 (4·8)	4 (4)
Tractive effort at 75 per cent. b.p. kg. (lb.)	10,900 (24,000)	12,250 (38,000)	17,800 (39,200)
Maximum speed ... km.p.h. (m.p.h.)	110 (68)	85 (53)	70 (43)

* With tender † Weight alteration equipment fitted to give 57 *tonnes* (56 tons) if necessary



Class "65" 2-8-4 passenger tank locomotive



Class "82" 0-10-0 shunting tank locomotive

Similarly, the whole frame structure is built up by welding as one piece, and based on bar frames of steel slabs 85 mm. (3·35 in.) thick. Other mechanical features common to all three classes include about 30 per cent. of reciprocating weights balanced, adjustable big-end bearings, carbon steel connecting and coupling rods of about 32 tons u.t.s., single-bar cross heads, piston tail rods, ribbed wheel spokes, outside toothed adjustment on the valve spindle for valve setting, small smoke deflector plates placed high up and with a large air gap between smokebox and plate, and a smokebox door locked by lugs round the periphery and with no centre handle. All classes are built to the full height of the Western German internal loading gauge, and this gives a very high-pitched boiler. Pre-war German classes were built to a composite gauge, which permitted running over certain other lines, but the chimneys had top and bottom sections; both were used inside Germany, and the top section was removed for "foreign" running.

INDUSTRY MUST HAVE WASTE PAPER.—Every industry is dependent on waste paper in some form or other. During 1950 packaging alone absorbed over 600,000 tons and increased exports this year will call for still more. Output of packaging material is slowing down and manufacturers are already feeling the pinch. In 1950 the total amount of waste paper salvaged and returned to the mills for repulping was 847,055 tons, but the total consumption was 887,082 tons, and this year the rate of consumption has already reached 1,000,000 tons. Merchants are prepared to buy waste from large business houses and manufacturing firms. Information as to the addresses of a number of waste-paper merchants can be obtained by applying to the Waste Paper Recovery Association at 52, Mount Street, London, W.1.

Platform Notices for Festival of Britain Trains

Indicator board at No. 10 platform, Kings Cross, Eastern Region, for the "Heart of Midlothian" train to York, Darlington, Newcastle, and Edinburgh

Platform notice board at Bristol, for the Western Region "Merchant Venturer" train which runs between Paddington, Bath, Bristol, and Weston-Super-Mare

"Royal Scot" archway at Central Station, Glasgow, Scottish Region

RAILWAY NEWS SECTION

PERSONAL

Mr. H. C. Lusty, Chief Civil Engineer, New Zealand Government Railways, has been appointed to the position of General Manager.

Mr. B. B. Varma, B.Sc., M.I.E.(India), who was appointed General Manager, East Indian Railway, in 1949, relinquished that position in March and proceeded on four months leave. He was born in 1897, and has been in railway service since 1920, when he joined the Oudh & Rohilkund Railway as an apprentice engineer. In 1921 he was appointed Assistant Executive Engineer, in which rank he joined the East Indian Railway in 1925 on the absorption of the Oudh & Rohilkund Railway by the East Indian Railway. He later worked as Personal Assistant to the Chief Engineer. After serving as Divisional Superintendent he went to Delhi, where he worked as Joint Director and Director, Establishment, Railway Board, and later returned to the East Indian Railway, again as Divisional Superintendent. He then served in turn as General Manager of the Oudh Tirhut Railway, and as General Manager of the Madras & Southern Mahratta Railway, before being placed on Special Duty with the Indian Ministry of Railways (Railway Board) in connection with the implementation of the report of the Indian Railway Inquiry Committee. He was appointed General Manager, East Indian Railway, in 1949. Mr. Varma attended the International Railway Congress at Rome, last year.

Mr. P. R. Hickman, Chief Officer (Stores), Railway Executive, is retiring on January 31, next year.

Mr. J. C. Atkinson, General Manager of the Jamaica Government Railway, is in Great Britain on leave.

Mr. C. W. Stokes is retiring on July 31 as Public Relations Officer for Europe, Canadian Pacific Railway, and will be succeeded by Mr. G. K. Nield, at present his Assistant.

We regret to record the death on July 21 of Mr. C. S. Smith, District Traffic Superintendent, Bombay, Baroda & Central India Railway, 1923-46.

Mr. G. M. Greenbury, General Supervisor of Car Service, Canadian National Railways, has been appointed Assistant Chief of Car Service.

We regret to record the death on July 18, at the age of 93, of Sir George Leveson Gower, K.B.E., Private Secretary to Mr. Gladstone, 1880-85, and between 1925 and 1933 a Director of the Metropolitan District Railway and Whitechapel & Bow Railway, and a Member of the East London Joint Committee and Whitechapel & Bow Joint Committee.

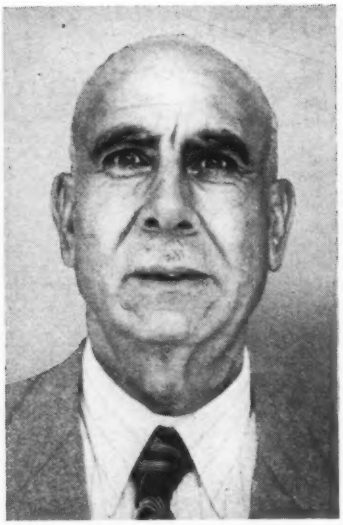
Mr. K. R. Ramanujam, General Manager, South Indian Railway, who, as recorded in our June 29 issue, has been appointed General Manager of the Southern Railway, India, was born in 1898 and was educated in the Presidency and Engineering Colleges, Madras. He took his degree as Bachelor of Civil Engineering in 1920 and joined the Madras & Southern Mahratta Railway as a probationer in the Engineering Department in 1922. Between 1923 and 1933 he worked as Assistant Engineer in charge of various Sub-Divisions and was also engaged on the construction of the Cocanada-Kotipalli Railway and from 1933 to 1945 held charge of various Districts as District Engineer in the senior scale. Mr. Ramanujam was transferred to the Office of the General Manager as Deputy General Manager (Works) in 1945 and became Deputy Chief Engineer, Metre Gauge, in 1947. In March, 1949, he went to the South Indian Railway as Deputy General Manager and in May of that year was promoted General Manager of that railway. On the amalgamation of the Madras & Southern Mahratta, South Indian, and Mysore State Railways in April of this year, Mr. Ramanujam was appointed as General Manager of the combined system now known as the Southern Railway, and consequently became the first General Manager of the first regrouped system of the Indian Railways under the scheme proposed by the Railway Board.

Mr. B. B. Varma

Who has relinquished his position as General Manager, East Indian Railway

Mr. K. R. Ramanujam

Appointed General Manager of the Southern Railway, India



Mr. I. H. El Gamal Bey

Chief Engineer, Way & Works, Egyptian State Railways, 1947-51

Mr. F. H. Colebrook

Stores Superintendent, Eastern and North Eastern Regions, 1948-51

Mr. A. Forbes Smith

Appointed Stores Superintendent, Eastern and North Eastern Regions, British Railways

Mr. I. H. El Gamal Bey, O.B.E., A.M.I.C.E., who, as recorded in our July 20 issue, has retired as Chief Engineer, Way & Works, Egyptian State Railways, but is continuing to assist the General Manager in carrying out the present heavy programme of new works, was born in 1891. He graduated at the Engineering College, Cairo, in 1915 and joined the Egyptian State Railways in the Alexandria District in 1916. In 1922 he went to Great Britain on deputation and joined the Great Eastern Railway Engineering Department at Liverpool Street Station; on his return to Egypt in 1925 he was attached to the technical office at Cairo headquarters. He then became successively, District Engineer, Divisional Engineer, Assistant Chief Engineer, and Deputy Chief Engineer, before being appointed Chief Engineer in 1947. In recognition of his achievements the title of Bey of the first degree was conferred on him by King Farouk and he received the O.B.E. for services to the Allied forces during the recent war.

Mr. F. J. K. Hull has resigned from the board of the Butterley Co. Ltd.

The Eastern Region has announced that Mr. G. J. Aston, District Operating Superintendent, Derby, London Midland Region, has been appointed District Operating Superintendent, Rotherham, Eastern Region.

Mr. C. R. Smith, Assistant Mechanical Engineer, and Mr. S. E. Merry, Assistant Electrical Engineer, Tasmania Government Railways, recently returned to Tasmania after a business visit to the United Kingdom.

The Minister of Transport has reappointed Sir Alan Rae Smith and Sir Harold Barton to be the auditors of the accounts of the British Transport Commission for the year ending December 31, 1951. Sir Alan Rae Smith, who is a Partner in the firm of Deloitte, Plender, Griffiths & Company, Chartered Accountants, was from 1939 financial adviser successively to the Ministry of Shipping, the Ministry of War Transport, and the Ministry of Transport. Sir Harold Barton is Senior Partner in the firm of Barton, Mayhew & Company, Chartered Accountants, and was President of the Institute of Chartered Accountants in 1944-45.

Mr. F. H. Colebrook, M.C., A.M.I.C.E., Stores Superintendent, Eastern and North Eastern Regions, who has retired, was educated at Christ's Hospital, West Horsham. In 1906 he was articled to the late Mr. Edmund J. Cullis, and he was employed with Taylor, Wallin & Taylor, Civil Engineers, Newcastle-on-Tyne, for a short period in 1910; in December of that year he joined the former North Eastern Railway as an Assistant in the District Engineer's Office, Northumberland District. He served overseas with commissioned rank in France during the war of 1914-18, with the 10th Bridging Train, 560th Company, R.E., and 10th and 296th Railway Construction Companies, R.E., and was awarded the Military Cross. After demobilisation in 1919 he resumed his duties with the N.E.R., and in 1921 was promoted to be Chief Draughtsman in the District Engineer's Office, Bishop Auckland. In 1924 Mr. Colebrook was transferred to Darlington, and two years later was appointed Assistant District Engineer under Mr. J. C. Valentine. Mr. Colebrook returned to Newcastle in 1927, on his appointment as Assistant District Engineer to Mr. F. E. Harrison in the Newcastle District. He was appointed District Engineer, Hull, in 1937, and District Engineer, York, in May, 1939. During the greater part of the recent war Mr. Colebrook, in addition to the normal work of maintenance and renewal on an important section of the L.N.E.R., had to carry out a large number of extensions for war purposes, and to make good a considerable amount of damage from enemy action. At the end of 1944 he was appointed Purchasing Agent, with responsibility under the Chief Stores Superintendent for purchases, delivery and sales, among other matters, and in 1946 became Purchasing Agent, L.N.E.R., responsible to the Chief General Manager for co-ordinating the company's purchasing, and for the operation of the Stratford Printing Works. In 1948 Mr. Colebrook was appointed Stores Superintendent, Eastern and North Eastern Regions, British Railways.

Mr. A. Forbes Smith, Assistant Stores Superintendent, Eastern & North Eastern Regions, who, as recorded in our June 29 issue, has been appointed Stores Superintendent, Eastern & North Eastern Regions, Kings Cross, was educated at Gordon Schools, Huntly, and Aberdeen University. He served with the Gordon Highlanders in France throughout the 1914 war. In 1927 he joined the L.N.E.R. in the Works Section of the Chief General Manager's Office and was appointed Rates, Statistics & Parliamentary Assistant in 1934. He toured India in 1936-37 as Assistant to the Indian Railway Committee. Mr. Forbes Smith became Assistant Goods Manager, Southern Area, L.N.E.R., in 1939. In 1940 he was lent to the Ministry of Supply, and held the post of Deputy Director-General in charge of transport. On his return to the L.N.E.R. he was appointed Traffic Stores Superintendent in 1946, and, after nationalisation, Assistant Regional Stores Superintendent, Eastern & North Eastern Regions in 1948.

Mr. E. J. Batchelor has been appointed a Director of Henry Meadows Limited.

We regret to record the death on July 19, at the age of 59, of Mr. S. E. Osborn, Chairman of Samuel Osborn & Co. Ltd. since November of last year.

Mr. R. W. Richards has resigned from the board of the Brush Electrical Engineering Co. Ltd.

We regret to record the death on July 19 of Mr. Norman Doran Macdonald, Advocate, who took a keen interest in railways, and consistently agitated for improvements, particularly about 50-60 years ago. He was also connected with the introduction of the first motorbuses in Edinburgh in 1898 and the first regular motorbus service in London six years later. He was the author of "The Railway Companies and Railway Brakes," published in Edinburgh in 1890, and played an important part in securing the Caledonian Railway 4-2-2 locomotive No. 123 for preservation. Mr. Macdonald was at one time a frequent contributor to our correspondence columns.

Ministry of Transport Accident Report

Penmaenmawr, London Midland Region, British Railways, August 27, 1950

Lt.-Colonel G. R. S. Wilson, Chief Inspecting Officer of Railways, Ministry of Transport, inquired into the accident which occurred at approximately 3 a.m. on August 27, 1950, at Penmaenmawr. The 1.45 a.m. up "Irish Mail" express from Holyhead, consisting of 16 bogie corridor vehicles drawn by 4-6-0 class "6P" engine, No. 46119, was approaching at about 60 to 70 m.p.h. under clear signals, when the home signal was put to danger just before the engine reached it, and the train collided with 2-6-0 type tender engine, No. 42885, causing very severe damage including destruction of a sleeping car. Four passengers and a sleeping car attendant were killed and another passenger fatally injured. Thirty-one passengers and four of the staff, including both enginemen of the "Irish Mail" and the driver of the light engine, were injured and taken to hospital, but eleven passengers and the mail driver were discharged the same day. A second collision was averted by the fireman of the mail, although painfully injured, protecting the down line with detonators.

Prolonged work by the breakdown gangs enabled single-line working on the up line to be introduced at 12.51 a.m. the next day, and normal working to be resumed at 8.15 p.m. It was a fine clear night with practically no wind, but fairly dark, with heavy clouds obscuring the full moon.

Brigadier C. A. Langley, Inspecting Officer of Railways, acted as Assessor to the Deputy Coroner for North Caernarvonshire at the resumed inquest on September 19, 1950, when the jury returned a verdict of misadventure in all cases and added the following rider: "No single person can be saddled with a guilty act, but there was very serious lack of co-ordination regarding signalling in the dark, which calls upon the railway authorities to make drastic reforms in the signal box system and to introduce a better method of co-operation between the signal box and the drivers of any engines in cross-over or shunting operations."

The diagram on page 106 shows the lines, signals, points, and other details essential to an understanding of the case. The view from the signal box is not affected by a slight curvature through the station, but unless the signalman descends the steps his view towards the crossover and trailing connection 10 and 11 is considerably obstructed by the close latticing of the footbridge girders. From an engine standing on the up line in the neighbourhood of the crossover a view towards the box is best obtained from the cess, or left-hand, side, but again the footbridge girders are in the way of a hand signal displayed from the top of the steps. There are no ground signals leading over the crossover or into the sidings. There is an outdoor trembler bell for the control of shunting movements. The primary object of the signal "clear up line for train to pass" is to ask for the up line to be vacated when it is being used for shunting in and out of the sidings, which is necessary when wagons are occupying the refuge sidings. A driver's view of the up distant and home signals is good.

There are no special instructions covering shunting, apart from those for the use of the trembler bell, and such movements are accordingly governed by Rule 69, as follows:

"During shunting operations signalmen must not move points until they have obtained a signal from the guard or shunter, or from the driver or fireman in the case of a light engine, intimating that the last vehicle or the engine, as the case may be, is clear of the points. This intimation must be given by the following means:—

Vehicles:

By day.—All right signal by guard or shunter.

By night or when necessary during fog or falling snow.—White light above the head moved quickly by a twisting movement of the wrist, by guard or shunter.

Light engines, unaccompanied by guard or shunter:

By day or by night.—One short whistle, except where otherwise specially provided for.

When a train has been set back into a refuge siding or through a crossover road, or in any other similar case where the engine is near the points, the signal will be given by the driver. When the shunting operations are completed the signalman must see, or have intimation from the guard, shunter, or driver, that the running lines are clear."

Rule 55, covering detention on running lines, was also involved. Where shunting movements are made over points and there are no fixed signals, Rules 111 (b) and (c) require the guard or shunter, or driver of an unaccompanied engine, to receive an intimation, verbally or by hand signal, or other authorised means, from the signalman that the movement may be made, and to see, as far as practicable, that the points are in the correct position.

Evidence

The Irish Mail was running 30 min. late and the driver saw a green light in the distant, and then in the home signal, but the latter changed to red "just before" he passed it. He thought he was a good deal less than 200 yd. from it and that he had reduced speed to about 50 m.p.h. by the time he struck the engine. The fireman was unable to run on account of his injuries, but managed to get forward about ¼ mile and put down detonators. Seeing headlights, he went on as far as he could and put down others.

The down freight train was being driven by a passed fireman, who saw the home signal at danger after passing the distant at clear. He shut off steam and braked, and two groups of detonators were exploded. He managed to pull up clear of the wreckage, about 150 yd. in rear of the home signal. He saw a red light being waved and found it was being displayed by the goods guard. The fireman of this train confirmed this evidence; he went back to look for the fireman of the express and found him in a state of collapse not far from the brake van.

The last minute reversal of the up signals gave the driver of the mail no opportunity to avoid the collision, and the main question was how did they come to be cleared with the line obstructed? The men concerned in that were the signalman, the driver and fireman of the light engine, and the goods guard who accompanied them to Penmaenmawr. The signalman was a man of 23 and had served in the box for 2½ years. The others were men of considerable experience.

The signalman said he accepted the mail at 2.50 a.m. The light engine arrived two minutes later, at the west end of the down platform. The goods guard got off and, learning that the 3 a.m. freight train was ready for him went into the yard. The signalman did not, however, mention the mail to him, but reversed crossover 12/14, and the engine moved away on a hand signal. When it had crossed to the up line the driver sounded a "pop" on the whistle, to indicate he was ready to move back through 11 and 10 points. Thus at about 2.54 or 2.55 a.m. the engine was standing on the up line just ahead of the crossover with driver and fireman on the footplate; the guard was in the sidings.

The signalman asserted that on hearing the whistle he restored 12 and 14 points and reversed 11 and 10, in one move, and gave a hand signal from the top of the steps to call the engine inside, when he also gave two rings on the yard bell to hurry the movement. He cleared back for the engine and accepted the down freight train at 2.55 a.m. The mail was put in section a minute later and the freight also. He obtained "line clear" for the latter and cleared all signals at once. About two minutes afterwards he heard a second "pop" whistle [the driver of the engine strongly denied giving this] and, although he had not seen or heard the engine move back or at any time noticed a light on the tender, took this as an assurance that it was clear inside, lost no time in restoring 11 and 10 and clearing all up signals for the express. He shut the door and sat down; about 3 a.m. he got up again. He was facing towards the east and caught sight of a red hand signal. Realising something was wrong, he threw back all the up signals just as he saw the mail's headlights.

He adhered to the statement that he heard the second whistle, perfectly distinctly, without possibility of confusion. It conveyed the idea that the engine was "inside No. 9 dummy," after which he was expecting the guard to call it back over the hand points to its train. He made no arrangement with him to call it through 11 points and had no conversation at all with the enginemen on arrival.

It was his practice to give the set-back signal himself, and, in the absence of ground signals, it was the driver's duty to see that the points were in their proper position. He had not noticed whether there was a light on the tender when the engine arrived, as he knew the driver would be changing headlights. He could see none when he gave his hand signal and could not account for the engine failing to move back. That had never occurred before. He had heard no complaints from enginemen that such signals were difficult to see, but had heard remarks that ground signals or track circuits would be desirable. He could only suggest that the engine might have gone a little way over 11 points towards the yard and that the driver, mistakenly thinking he was going back along the up line, had come forward again and whistled.

His method always had been to cross engines through 12 and 14 and then back them through 11 and 10, as there were often wagons standing in one or other of the refuge sidings, and he could never be certain of the lie of the hand points. He could have put the engine straight into those sidings, one of which

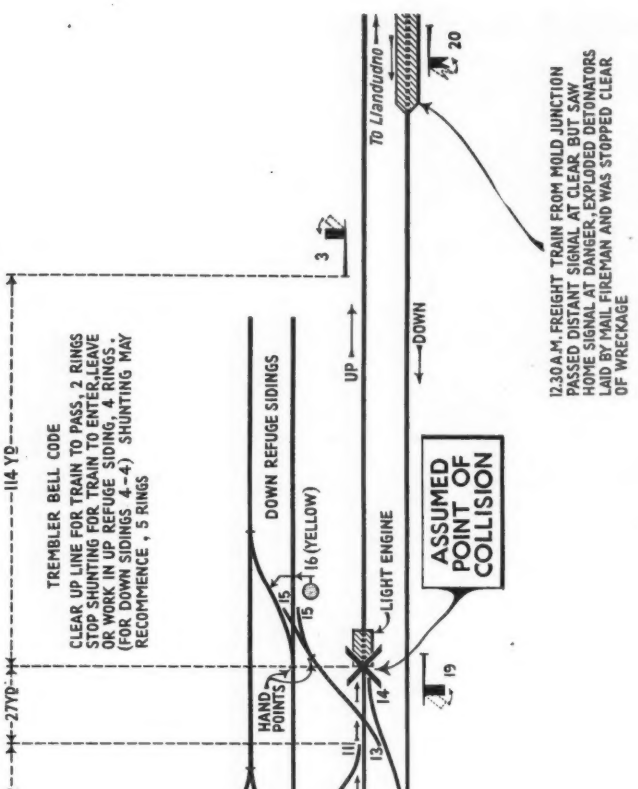

1.45 A.M. IRISH MAIL EXPRESS FROM HOLYHEAD, TRAVELLING AT 60 TO 70 M.P.H. PASSED DISTANT SIGNAL AT CLEAR, SAW HOME SIGNAL REPLACED JUST BEFORE REACHING IT, AND COLLIDED VIOLENTLY WITH LIGHT ENGINE NEAR No 14 POINTS
3.0 A.M. FREIGHT TO MANCHESTER AWAITING ENGINE
YARD
UP REFUGE SIDING
TREMBLER BELL OPERATED FROM SIGNAL BOX
FOOTBRIDGE No 128
9 (YELLOW)
10
2
UP
DOWN
POSITION OF LIGHT ENGINE ON ARRIVAL
PENMAENMAWR STATION
S.B.
18
BRIDGE No 129
SIDING
5
8
8
1
A
To Holyhead
4
17
6
273 YD
15 YD
186 YD
46 YD
27 YD
114 YD
TREMBLER BELL CODE
CLEAR UP LINE FOR TRAIN TO PASS, 2 RINGS
STOP SHUNTING FOR TRAIN TO ENTER, LEAVE OR WORK IN UP REFUGE SIDING, 4 RINGS.
(FOR DOWN SIDINGS 4-4) SHUNTING MAY RECOMMENCE, 5 RINGS
DOWN REFUGE SIDINGS
HAND POINTS
15
15
16 (YELLOW)
11
13
14
12
LIGHT ENGINE
ASSUMED POINT OF COLLISION
19
3
UP
DOWN
To Llandudno
20
12.30 A.M. FREIGHT TRAIN FROM MOLD JUNCTION PASSED DISTANT SIGNAL AT CLEAR, BUT SAW HOME SIGNAL AT DANGER, EXPLODED DETONATORS LAID BY MAIL FIREMAN AND WAS STOPPED CLEAR OF WRECKAGE
ORDINARY 3-POSITION BLOCK TELEGRAPH; UP ADVANCED STARTING SIGNAL No 23 RELEASED BY "LINE CLEAR" No 1 LEVER PROVED NORMAL WHEN GIVING "LINE CLEAR" ON UP BLOCK. NO OTHER CONTROLS AND NO TRACK CIRCUITING

Diagram illustrating the circumstances of the accident at Penmaenmawr, London Midland Region, August 27, 1950

was reported clear, but only if he had made certain of the hand points. It was better to work as he did. He strongly denied that he had intended originally to put it in *via* 12, 13, 15, and had never reversed 11 and 10. It was the goods guard's hand signal and nothing else which led him to reverse his up signals; he was not anxious about the position of the engine and not looking in the up direction for that reason. He happened to be facing that way as he was about to replace the up distant in the ordinary course. He was sure the red light was given from the up platform, not the ground beyond it, and he saw it underneath the footbridge. It did not convey to him that the engine was still on the up line; he thought there must be something wrong with 11 points, as he had experienced trouble with stones becoming lodged in them. He saw no white light before the red and heard no "crow" whistle. The box door was at that time closed.

This man seemed to be under the impression that he had complied fully with Rule 69 and that under its last paragraph he had received the necessary intimation from the driver, *i.e.*, one short whistle, that the running lines were clear, and referred in support to the two preceding paragraphs, in which such intimation must be given by one short whistle when an engine is unaccompanied by guard or shunter. His practice was to accept a "pop" whistle as signifying an engine was clear, without any other confirmation, and he could not recollect being told otherwise when questioned on Rule 69 by the Assistant District Signalmen's Inspector. He had been perfectly satisfied in his mind that all was well on this occasion. If the guard went up with the engine he usually gave a hand signal for "inside clear." (He admitted, however, at the Regional inquiry that someone should have come to the box and told him.)

The other two signalmen said it was their practice to accept a "pop" whistle for "inside clear," but later qualified that by saying that if not perfectly satisfied they would go down the steps or on the up platform to make sure.

The statements made by the driver and fireman of the light engine, and by the goods guard, were to some extent self-contradictory, but the driver had sustained severe shock and bruises and was away from duty for three months. He could not be questioned by Colonel Wilson until November 23. He had been told at first at Llandudno Junction that he would have to work light to Mold Junction, but later was informed by the guard that the 3 a.m. train from Penmaenmawr would run. He was sure his lights were burning properly and had worked that train several times, though not with this guard, who got off on the down platform, spoke to the signalman and walked to the yard. He moved his engine through the crossover and then sounded the whistle, continuing to look for a hand signal and seeing none. After some 3 to 4 min. he observed what he considered to be a set-back signal from his guard. He acted on this, but found he was going back along the up main. He stopped between the points and the platform, and was getting into forward gear again when he saw the up advanced starting signal go to green. He did not connect this with the approach of an up train, but thought that after all there was no train for him and he was to go back light. The guard had now come up and he asked him what was happening and was told to get ahead of 11 points and give a "crow" whistle. He did so and told the fireman to change the lamps. Shortly after

that he heard a shout that the mail was approaching and thought he had just begun to move when the collision occurred.

At another time, however, the driver said he did not speak to the guard after coming back along the main line, and the latter's warning to get forward out of the way of the express followed within a few minutes of his instruction to move forward. It was suggested to him that after waiting the 3 or 4 min. he had become impatient and given a second "pop" whistle to say he was still waiting, but he strongly denied that and also that he might have sounded the whistle sub-consciously as he opened the regulator to move back. He maintained that he whistled twice only, a "pop," and a "crow" on coming forward over 11 points *after* he had made his false move back. The 3 or 4 min. he was standing did not, he thought, justify sending the fireman to the box, but he admitted he should have taken immediate steps to remind the signalman that he was still on the up line coming back in the wrong direction.

The fireman estimated that after the driver first whistled there was a pause of 2 or 3 min. before he moved back, but could not be sure whether he whistled again before doing so. He saw no hand signal, but was positive the engine went along the up line. His evidence did not suggest that the engine went as far towards the platform as the driver stated. His original statement differed materially from the driver's in that he referred to a second backward movement over 11 points, when he again took the main line, but later, in the face of the driver's emphatic statements, he became uncertain about this.

The goods guard said he was checking the position of the points in the yard when he heard the two bell rings. He had given no set-back signal at all. It was the signalman's business to bring the engine inside. He was not becoming concerned over delay, but wondered why the engine had not come back, and had gone to see what was the matter. He found 10 points normal and showed a red light to prevent them from being burst. Seeing where the engine was, he gave a white light and told the driver to go forward over 11 points and whistle, and he showed a white light to the box to get those points reversed again. On hearing the mail approaching he showed a red light. This evidence was somewhat vague and inconsistent.

The signalman was well spoken of by various officials. A district inspector said he had gone into Rule 69 with the men at classes. At first he seemed uncertain whether the signalman had complied with it in accepting the whistle only as an assurance that the running line was clear, but said finally that the rule required verbal information from driver, fireman, or guard, and failing that, it was the signalman's duty to go down and see. The assistant inspector, on the other hand, said—as did a former district inspector—that the whistle was not enough.

Chief Inspecting Officer's Conclusions

Colonel Wilson accepts the signalman's statement that it was always his intention to put the engine into the sidings *via* the up line, and that he reversed 11 and 10 points as soon as the driver whistled. He thinks it probable also that he did hear a second whistle about 2.58 a.m. Confusion with any other sound was unlikely. His evidence was simple and straightforward, and, taking account of his superiors' views on his work generally, Colonel Wilson does not think he could have acted so irresponsibly as to assume that the engine had moved inside merely from the lapse of time after the first whistle, without hearing another, but regrets being unable to reach a definite conclusion on the movements made by the engine after it crossed to the up line, or on what passed between the driver and the goods guard when it reached the neighbourhood of 11 points.

Colonel Wilson did not, however, disbelieve that the engine's lights were burning properly, although the guard's evidence on that point was worthless and the signalman may not have seen the light on the tender on account of the footbridge, which may have prevented the signalman's set-back signal from being seen. After standing for 2 or 3 min. with nothing happening the driver may have sounded the whistle again, perhaps in impatience, without realising the misleading implication, and then set back, probably on the hand signal from the guard, of which he spoke. In the meantime the signalman had reclosed 11 and 10 points.

About this time the driver saw the advanced starting change to clear, and it was most unfortunate that he assumed that to be for him to go back eastward.

Alternative Possibility

There is the alternative possibility, suggested by the signalman, that the driver may have seen his hand signal and gone a short way over 11 points and mistakenly thought he was on the up line—even stopping under his false impression that there was no train for him—and come forward again and whistled and then gone back along the up line on seeing the guard's signal. The fireman did actually refer to a second movement made while he was on the ground and then modified that by saying the driver went only a little way over 11 points the first time. The evidence does not support wholly either alternative, but the driver may well have whistled a second time and his recollection may have been affected by severe shock.

The signalman, by accepting the whistle without confirmation, took insufficient pains to satisfy himself that the line was unoccupied; it is surprising that he never troubled himself to look for the engine lamps as a more positive indication of its movements. He made no proper attempt, to give a clear hand signal and watch for the response, or to see what was going on when he heard the second whistle. He should have done so, though he stated quite frankly that he did not and that he was satisfied, but at the Regional inquiry he admitted that someone should have told him that the line was clear and it was required by local instructions, after he had rung the yard bell. Colonel Wilson, however, attaches little importance to that, except as an indication of a desire to get the engine inside quickly. It is held to be more likely that avoidance of delay to the mail may have been uppermost in his mind and led him to act without sufficient thought, perhaps against his better judgment, and Colonel Wilson believes it was not fortuitous that he was looking towards the crossover after the mail had passed the distant signal and saw and acted immediately on, the guard's red hand signal. Probably he was in fact becoming anxious whether the engine was really clear inside as it had not appeared at the head of its train opposite the box. He could not have seen the red handlamp under the footbridge had he been standing at the lever frame.

With regard to Rule 69, there appears little doubt that the intention of its final paragraph is that one short whistle alone should not be taken as an assurance that the running line is clear—as is to be hoped—although under the preceding paragraph such a signal is sufficient to show that an engine or vehicles are clear of the points. On the former L.M.S.R. this rule made no mention of whistles, even for that purpose, for which hand signals were required, but the final paragraph was the same as today. The rule was changed in 1943 to its present form and is so incorporated in the British Railways Standard Rule Book.

The signalman may thus be said to have contravened the rule, as it is intended to be read, but there is room for misinterpretation, especially with the repetition of the word "intimation" in the final paragraph. It would be unfair to place undue emphasis on it in assessing his responsibility, unless the intention of the final paragraph had been thoroughly explained to him during his training and subsequent examinations. Colonel Wilson is not satisfied of that.

On the other hand, ambiguity could not be held to have relieved him of his duty as a signalman to have taken more care than he did to satisfy himself that the engine had completed its intended movement, and he must bear some responsibility. It was questionable whether it was wise to accept the mail with so small a time margin. Events might have been different had he informed the goods guard that he had accepted that train.

His responsibility must be shared in considerable measure by the light engine driver; he was detained 5 or 6 min. and failed to send his fireman to the box or at the very least draw attention to his position. Colonel Wilson doubts whether his responsibility under Rule 55 ever entered his mind, even when he did move back over 11 points and found himself still on the main line. The clearing of the advanced starting signal should have been an unmistakable warning. The assumption that it was for him was not warranted, especially as his guard had not come back. When he stopped his backward movement he made no attempt to find out his position from the guard, who appears then to have been close to the engine.

The guard knew the engine was to come into the yard and saw it was making a wrong movement. Instead of showing a red light to the box until he could find out what was the matter, he was content to do nothing until brought to his senses by the sound of the approaching express. This driver is 51 with 29 years' experience and a good record. The guard is 50, with 25 years' experience and a similar record. The driver of the mail bears no responsibility, while the unselfish action of his fireman in going forward deserves high praise.

Remarks and Recommendations

This was a simultaneous failure of men to appreciate their responsibilities and the second line of defence provided by Rule 55 proved ineffective. This and other cases have led the L.M.R. to issue a special reminder to staff, and action on these lines may be desirable generally. Colonel Wilson doubts whether sufficient pains had been taken to explain clearly to a young inexperienced man his responsibilities under an important rule, especially having regard to its ambiguous wording. This may have applied to the other signalmen at Penmaenmawr, and a lax method of working have come to be accepted, with risk of a dangerous mistake sooner or later. Rules must leave some room for intelligence and imagination; the importance of adequate training and supervision of men starting their career as signalmen cannot be overstressed. This is not sim-

plified when the interpretation of a vital paragraph is a matter of opinion.

It is recommended to revise Rule 69 so as to remove possibility of misinterpretation and emphasise that one short whistle is not sufficient assurance that running lines are clear. At some places in the L.M.R. a specific code of whistles is laid down to indicate that a shunting movement is "inside clear"; the new British Railways Appendix will contain a standard code of engine whistles for communicating between drivers, signalmen, and ground staff. Colonel Wilson thinks, however, that it is not right, as a general principle, that any whistle signal should be held to relieve a signalman of obligations under Rule 69. Compliance may often mean some trouble and he may be in a difficult position if traffic is not to be delayed, though in some circumstances the likelihood of misunderstanding a code whistle may be remote. It is not simple to strike a balance between safety and expeditious working. In fairness to staff the Railway Executive should review Rule 69 carefully in its relationship to the standard whistle code and any local instructions.

The view from Penmaenmawr box leaves much to be desired, but it is to be renewed practically opposite the crossover. A track circuit will not be necessary at the up advanced starting, although others are proposed there; ground signals will be provided. This meets the intention of the jury's rider, but the installation of safety equipment generally should be pressed forward within the limits of resources.

Absence of Ground Signals

There is no great objection to the absence of ground signals, where connections are close to the box, but such are better in all respects, especially at night. The position should be reviewed in all Regions; where regular movements occur at some distance from the box their provision should be considered on the merits of each case.

Colonel Wilson points out that no form of carriage construction can avoid severe damage to a heavy train in collision. (The energy to be dissipated in this case was some 3,000,000 foot-tons.) The wreckage confirmed the wisdom of the Executive in adopting rigidly holding central Buckeye type couplings in standard designs, though the long stroke buffers on all but one of the coaches undoubtedly reduced the shock. A Buckeye coupling between the first class sleeper of the train and leading van might have prevented over-riding of underframes.

It was remarkable how well stresses were resisted by the reinforced ends of the steel body of the fourth coach. New standard designs provide for an all-steel shell formed by pressing and welding. The welded attachment of the body to the underframe develops a combined resistance to longitudinal and vertical stresses, and the body ends will be reinforced by steel sections, as an adjunct to the Pullman type gangway, to be adopted in connection with the Buckeye couplings. The underframes alone will be able to withstand an end thrust of 200 tons without permanent deformation, compared with 120 in existing stock.

A.B.C. COUPLER & ENGINEERING CO. LTD.—The group profit of the A.B.C. Coupler & Engineering Co. Ltd. last year was £118,702 as compared with £88,470 in the previous twelve months. The dividend recommended is 20 per cent.

B.T.C. Passenger Charges Scheme, 1951

Preliminary consideration of objectors by Transport Tribunal: full inquiry on October 8

The Transport Tribunal on July 17 held a preliminary hearing, as recorded briefly in our last week's issue, to determine the eligibility of the 203 objectors to the draft Passenger Charges Scheme, 1951, announced in April last by the British Transport Commission; details of the scheme were given in our April 20 issue.

Mr. Hubert Hull, President of the Tribunal, pointed out that it had power to order any objector who wasted time on "frivolous or vexatious matters" to pay costs. Some objectors sought to enter on matters with which the tribunal was not concerned. A large number of objectors, he said, contended, expressly or by implication, that the Commission should be relieved, wholly or in part, of its statutory liability to pay interest on Transport Stock. Others maintained that the B.T.C. ought in some way to be subsidised by the Exchequer. The Tribunal had nothing whatever to do with either of these matters.

It did not follow that if the tribunal decided in the case of any objector that he was not entitled, as of right, to take part in the proceedings, he would not have a chance of addressing the Tribunal, which had a discretionary power to permit any person to address it if it thought he could say anything useful. After the Tribunal had decided which of the objectors had a statutory right to be heard. the inquiry would be resumed in October.

Abuse of Tribunal

Sir Malcolm Trustram Eve, on behalf of the B.T.C., said that 48 branches of one trades union had submitted objections, the wording of which was almost identical. This, he stated, seemed to be only abuse of the processes of the Tribunal for the union itself did not appear.

During the hearing there were several interruptions, and the President said: "This is a court of law and not a public meeting. If anyone continually gets up interrupting I shall have to ask him to leave."

The President announced that the Tribunal had considered some of the bodies on the list of objectors and did not propose to exclude the following:—

British Legion Metropolitan Area Council; Clacton, Frinton, Walton & District Season Ticket Holders' Association; London Passengers' Association; National Council of the Commercial Travellers' Association; Ramblers' Association; Ski Club of Great Britain; Southend-on-Sea Railway Travellers Association; British Iron & Steel Federation; Mansion House Association on Transport.

Traders' Co-ordinating Committee on Transport; Traders' Traffic Conference; British Gas Staff Association; Civil Service National Whitley Council (Staff Side); Guild of Insurance Officials; London Printing & Kindred Trades Federation; National Federation of Building Trade Operatives.

National Union of Bank Employees; National Union of General & Municipal Workers; Post Office Engineering Union; Union of Shop, Distributive & Allied Workers; Tobacco Workers' Union; and the Watermen's, Lightermen's, Tugmen's & Bargemen's Union.

When the hearing was resumed on July 18, Mr. J. Gaster, for the Communist Party and the London District Committee of the Communist Party, said that Sir Malcolm Trustram Eve had stated it would be against the public interest for a political party to be heard. Mr. Gaster said it was in the public interest that any political party which put in an objection should be heard. Sir Malcolm Trustram Eve had suggested that the right to lodge an objection under the Transport Act was in some way discretionary. The question of the right to be heard was either in the Act or it was not.

Sir Malcolm Trustram Eve said that he had been misquoted; if anyone came within the section of the Act concerned, they were entitled to be heard.

After retirement the President named 75 objectors who, he said, were bodies which the Tribunal had decided had no statutory right to appear. They included the Communist Party and the London District Committee of that party. He declined to give reasons for the Tribunal decision. Other objectors excluded included 42 branches of the Amalgamated Engineering Union, other trade union branches, shop stewards' committees, and ratepayers' associations.

The preliminary inquiry ended on July 18. The full inquiry will start on October 8, at Church House, Westminster.

Parliamentary Notes

British Transport Commission Bill

The British Transport Commission Bill was read the third time with the amendments in the House of Lords on July 19.

Conscription of Railwaymen

Mr. A. Edward Davies (North Stoke-on-Trent—Lab.) on the motion for the adjournment of the House of Commons on July 19, said they had been told by the Parliamentary Secretary recently in a debate in the Lords, that there were some 20,000 vacancies on the railways, 16,000 men doing national service and a serious shortage, particularly of train crews and guards. He went on to outline the operating difficulties that had arisen, the attractiveness of other employment, and the steps to improve the situation (including the working in certain cases of a 48-hr. week) under discussion between the Railway Executive and the unions.

The question of reserving men from National Service, continued Mr. Davies, had already been before the Ministry of Labour. Although there was a shortage of skilled railwaymen, the Minister had not seen his way to defer men. There were many young men who were now being called up who ought to be skilled railwaymen in the days immediately ahead.

Mr. Davies also advocated greater flexibility in the procedure for altering B.T.C. rates and fares, and greater capital expenditure on the railways.

Mr. P. H. Collick (Birkenhead—Lab.) stressed the serious shortage in operating grades. In an emergency, every one of them would be reserved; yet the Minister stood idly by allowing 4,000 firemen, conscripts last year, to go out of the industry. He was now allowing thousands more to go out this year. Unless he did something more, there would be serious difficulty next winter in moving coal. This was not a matter of day-to-day management in the transport industry.

Mr. Alfred Barnes (Minister of Transport) said that the railway staff difficulty became serious only over last winter. It had originated in the diversion of traffic

caused by importation of coal. Early in the year weather conditions caused epidemics which had affected work in shunting yards in particular. There was also the competition of other industries for labour.

Deferment, Mr. Barnes continued, was a matter of Government policy. A procedure upon which the trade unions placed considerable value was that by which both managements and the unions had direct access to the Ministry of Labour in the first instance. It was not until the normal machinery that existed between the unions and the management and the Ministry of Labour had failed to work out a solution that the matter became one of national importance which the Government as a whole considered. Deferment of any grades of labour during a defence programme was not an easy solution. He could state that the problem was before the Government, and the full facts of the situation would be submitted for their consideration. The total number of railwaymen involved in the proposal of deferment was 2,900 in certain key trades.

British Employees of Argentine Railways

Mr. John Edwards, Economic Secretary to the Treasury (Brighouse & Spenborough —Lab.), said on July 5 that it was one of his primary objects in the negotiations with the Argentine Government to secure redress for the employees of the railways and certain other undertakings, whose permits to receive their pensions in the United Kingdom had been stopped. He secured from the Argentine Government its undertaking to consider favourably periodic renewal of permits which had expired and the issue of permits to returned employees who had not received them.

Questions in Parliament

Inquiry into Nationalised Transport

Sir Ian Fraser (Morecambe & Lonsdale—C.) on July 2 asked the Minister of Transport whether, in the light of three years' experience of nationalisation, he would institute an independent inquiry into its operation, both as it affected the travelling public and railway workers.

Mr. Alfred Barnes stated in a written answer: No. I do not consider that any such enquiry is necessary. The Central and Area Transport Users Consultative Committees set up under the Transport Act provide machinery for ascertaining and looking after the interests of the travelling public. Railway workers have available full machinery for negotiation and consultation with the Railway Executive.

Draft Charges Schemes

Colonel J. Hutchison (Scotstoun, Glasgow—C.) on July 23 asked the Minister of Transport what time he had allowed under Section 76 of the Transport Act for the laying of a freight charges scheme before the Transport Tribunal.

Mr. Barnes: I have received an application from the B.T.C. that I should allow a further period of two years from August 5 next for preparation and submission to the Transport Tribunal of its draft charges schemes. Any longer period which I may allow must apply to all draft schemes not yet submitted, as I have no power to allow different periods for particular schemes. The further period of two years is likely to be required in relation to the draft scheme for dock charges, which will cover 80-90 undertakings, each of which now has a separate schedule and different charges designed to meet the trade and customs of the particular port.

In the case of the draft merchandise charges scheme, the Commission would require to avail themselves of only a few months of the further period. The primary reason for any postponement is the need to allow further time for further discussions with coastal shipping interests, and this need has been endorsed in a communication which I have received from the Coastal Shipping Advisory Committee.

I am giving careful consideration to the Commission's application and will announce my decision shortly.

Railway Manpower Efficiency

Captain Peter Thorneycroft (Monmouth —C.) on July 10 asked the Minister of Labour whether he could make a statement on lodging turns and other methods of increasing efficiency, discussions on which were inaugurated by the Government on the occasion of the recent settlement of railway wage rates.

Mr. Frederick Lee (Parliamentary Secretary to the Ministry of Labour): I am informed that these discussions are being conducted in a spirit of co-operation, and the Railway Executive and the unions on June 6 published a joint statement of the results to date. Discussions are continuing.

Captain Thorneycroft: It was a condition of this settlement that these important matters should be examined and a solution reached upon them. When are we going to hear the decision about lodging terms and overtime working?

Mr. Lee: If Mr. Thorneycroft will look at the statement, he will see that it had been agreed that the practice of employing knockers-up for footplate staff and guards for rosta turns of duty should be discontinued not later than July 30, 1951, and an understanding has been reached on lodging turns which should result in better use of manpower. I hope Mr. Thorneycroft will wait for the final statement.

Captain Thorneycroft: The statement issued carefully avoided the two main points at issue, namely, any detailed reference to a decision on lodging turns and had nothing at all to say about overtime working.

Mr. Lee: The statement issued is not final. I have said that discussions are continuing.

Mr. G. Nabarro (Kidderminster—C.): General dissatisfaction with railway conditions in the Midlands has caused such a drift of labour away from the railways that the freight service will be brought to a standstill.

Mr. Lee: Whenever one has a basis of full employment there is a difficulty in finding manpower.

Mr. John Hynd (Attercliffe, Sheffield—Lab.): Dissatisfaction will not be removed my imposing any decision from the Government, but only by agreement between the unions and the Railway Executive.

Southern Region Channel Steamer Launched

Lord Hurcomb on the importance of British Railways shipping activities

On July 19, at the Dumbarton yard of William Denny & Bros., the Hon. Pamela Hurcomb, daughter of Lord Hurcomb, Chairman of the British Transport Commission, launched the vessel *Normannia* which later this year will join the fleet of steamers operated by the Southern Region of British Railways. This vessel has been designed principally for the service between Southampton and Havre and to replace the *Hantonia* which will go out of service after a career lasting 39 years.

The *Normannia* is a twin-screw vessel of 3,800 tons gross and is designed to carry about 1,400 passengers and a crew of 67. Her speed when fully loaded will be 19½ knots. There will be a full range of public rooms and private cabins, and in addition to a restaurant seating 104, there will be bars and buffets avail-

The Hon. Pamela Hurcomb launching the "Normannia" at Dumbarton on July 19. Sir Maurice Denny, Chairman of William Denny & Bros. Ltd., is seen on the left, and Lord Hurcomb, Chairman of the British Transport Commission, on the right

able for the service of refreshments in smokerooms and lounges. Equipment will include a Denny-Brown ship stabiliser as now fitted in a number of cross-Channel vessels and which has proved so successful in eliminating rolling during bad weather. The name of *Normannia* was previously borne by a sister ship which was lost at Dunkirk in 1940.

Lord Hurcomb, speaking after the launching ceremony, remarked that the same shipbuilders had built 50 vessels already for the routes now operated by the Southern Region alone, and since the war 16 new vessels had been added to the British Railways fleet. Twelve are now being built. Ships owned by the British Transport Commission now numbered 136, having a gross tonnage of 180,000, and 73 of these were engaged in cross-Channel services, earning a valuable revenue. They carried nearly 11,500,000 passengers last year and they also carried 1,300,000 tons of cargo and 133,000 motorcars. Total gross receipts from shipping services came to nearly £11½ million, excluding the contributory railway earnings, which were substantial.

Since the British Transport Commission came into being, readily identifiable increases in their expenditure in the shape of wages and other concessions to the staff and in the cost of essential materials, had amounted to £60 million a year, and, when all items were taken into account the figure would be nearer £75 million a year. They had in part offset these increases, and the loss of the abnormally high Government traffics of the immediate post-war period, by economies; these they would continue to seek, but economies could not bridge so large a gap. If the B.T.C. had been allowed greater flexibility in adjusting its charges they would not have incurred a deficit in 1950.

In their shipping activities they must continue to follow a progressive policy of improving their fleet. They must, like any other shipowner, also have careful regard to the very high cost of building in relation to potential earnings. They had not neglected the opportunities for economy arising from the unification of the railway fleets which had enabled them to switch ships from one route to another.

Their interests in coastal shipping, apart from ferry services to the Isle of Wight, were in effect confined to Scotland. They recently made a thorough review of the Clyde services and they looked forward confidently to satisfactory results from the decision to replace some of the older vessels by more efficient and economic units, and to build for this purpose seven new ships, all of which will be laid down on the Clyde.

Staff & Labour Matters

Mr. H. W. Franklin, President of the N.U.R., on July 22 appealed in a speech at Stoke-on-Trent to N.U.R. members to help the B.T.C. solve the railway manpower problem. He declared that if anything could cause the fall of the Government, it was a strong trade union like the N.U.R. turning a deaf ear when asked to help in a difficult situation. The N.U.R. Executive had agreed to the Railway Executive inviting men to accept the proposed voluntary measures to meet the present manpower situation (enumerated in our last week's issue).

The Liverpool & North Wales District Council of the N.U.R. on July 22 passed a resolution repudiating the N.U.R. Executive action in accepting the Railway Executive's proposals.

Earlier in the week the Saltley (Birmingham) Branch of the A.S.L.E.F. passed a resolution opposing the efforts of the Executive Committee of the Society to obtain deferment of call up. It stated: "We cannot agree that in the event of this being secured any further concessions should be given up, such as a week of our annual holiday. Having worked overtime on Saturdays and rest days to a great extent, we feel that some assistance should be given by the Government without making further demands on our members."

Derby Midland Station Improvements

The existing overall type roof at Derby Midland Station, London Midland Region, which is still largely the original structure erected by Robert Stephenson in 1839 and was badly damaged during the war, will be replaced by one of pre-stressed pre-cast awning design.

Plans also include the provision of new waiting rooms, toilets, and refreshment rooms on the two island platforms, a new footbridge giving access to all platforms from each side, and an additional stairway on No. 1 platform. The station will be lit by electricity instead of by gas.

On the island platforms the roof will be carried on two columns at approximately 60 ft. centres longitudinally. The space between the columns and the platform edge will be covered by a solid concrete slab approximately 10 ft. wide, and the area between the columns will be covered by another concrete slab at a higher level; the space between the high and low portions of the roof on each side, which in effect forms a clerestory, will be glazed.

The main platform, No. 1, will be unobstructed by columns, and the cantilever roof will extend from the line of the buildings to the edge of the platform, a width of approximately 30 ft.

As the new roof would obstruct the clear view of the signalman in the box in the centre of the station, a new signalbox is to be constructed and the present old type colour light signals replaced by modern equipment. The cost of the scheme will be about £200,000.

Contracts & Tenders

A contract has recently been placed with Cravens Railway Carriage & Wagon Co. Ltd. by the Crown Agents for the Colonies for two 52 ft. inspection cars of "AP" type for the Nigerian Railway.

The Government of New South Wales is inviting tenders for the supply of 200 locomotive tenders to the Department of Railways specification No. 2224. The closing date of the tender is September 26 and further details are given under Official Notices on page 111 of this issue.

The Argentine Ministry of Transport has issued a call for tenders for the supply of the following rolling stock for the City of Buenos Aires Underground: 20 single motorcoaches and 30 double motorcoaches. Tenders, quoting Licitacion Publica No. 275, must be submitted directly to the Ministry, Avda. del. Libertador General San Martin y Maipu, Buenos Aires, where they will be opened on September 10. Further information may be obtained at the Argentine Embassy, or at the Argentine Ministry of Transport Purchasing Commission, London, E.C.2.

The United Kingdom Trade Commissioner at Johannesburg has reported that the closing date of the South African Railways call for tenders No. A.2599 for flat-bottom rails and fishplates has been extended from July 12 to August 9, according to the Board of Trade Special Register Information Service. Furthermore, the Administration is prepared to consider tenders to A.S.T.M. specification A.1, or similar, but the rail profile, rollmarks and lengths must conform to the S.A.R. specification attached to the tender. Details of the call were previously given in our June 29 issue.

Notes and News

Vacancy for Senior Draughtsman.—A senior draughtsman, with experience of railway and wharf work, is required by a London firm of consulting engineers. See Official Notices on page 111.

Vacancy with Davies & Metcalfe.—A young man is required, with locomotive experience, for training for post in the offices of Davies & Metcalfe Limited. Romiley, near Stockport. See Official Notices on page 111.

Traders' Traffic Conference.—As from August 1, the address of the Traders' Traffic Conference will be 124, Cardiff Road, Llandaff, Glamorganshire; telephone Llandaff 1114.

American Loan for Spanish Railways.—The United States Export-Import Bank has announced that it has granted a loan of $7,500,000 (£2,678,000) to Spain for improvement of the Spanish railway system. The loan is part of a $62,500,000 special appropriation voted by Congress for the use of the Spanish Government.

Road Casualties in May.—Road casualties in Great Britain during May totalled 18,433 as compared with 16,615 in the corresponding month last year. Deaths numbered 444, an increase of 25, and seriously injured 4,391, an increase of 277. Total casualties in May, 1939, were 20,572.

British Railways Coal and Steel Carryings.—During the weekend to July 23, British Railways cleared 201,940 tons of coal from deep-mined pits and open-cast sites, making a total of 2,770,380 tons for the week. The latest figures for iron and steel show that 174,399 tons were conveyed during the week ended July 14 from the principal steelworks.

Demonstration for Pallet Standardisation.—For some time the British Standards Institution has had under consideration the standards which should be adopted for pallets used in connection with the fork-lift truck and pallet system of freight handling. With the object of obtaining further data to assist the Palletisation Committee a demonstration was held recently at the Stockton depot of S.P.D., an associate of Lever Brothers & Unilever Limited. Altogether, 21 tests were carried out, and included stability and rail van loading lists using 22 in. and 27 in. pallet trucks. The tests were conducted in the presence of Mr. A. F. Much, Chairman of the Palletisation Committee of the British Standards Institution, and Mr. E. G. Whitaker, Mem-

OFFICIAL NOTICES

W⅔ buy used or unserviceable Steel Files at good prices, in lots of 2 cwts. or more.—THOS. W. WARD LIMITED, R.S. Department, Albion Works, Sheffield.

GENTLEMAN, Oxford Degree Maths., returning to England, family reasons, at present employed by Dominion Railway as Technical Assistant in Chief Civil Engineer's Office, seeks position. Experience in drawing office and with Hallade, Proksima, etc. Present salary £600, but interesting and varied work first consideration. Correspondence in *R.G.* Age 38. —Box 154, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

RAILWAY SIGNALLING AND COMMUNICATIONS INSTALLATION AND MAINTENANCE. A practical guide, especially intended to help Signal Inspectors, Installers, Fitters, Linesmen, Draughtsmen, and all concerned with installing and maintaining Signal, Telegraph, and Telephone Equipment. 416 pp. Many illustrations. Cloth. 8*s*. By post 8*s*. 6*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

GOVERNMENT OF NEW SOUTH WALES

TENDERS are invited for the supply of:—200 Locomotive Tenders to Department of Railways, Specification No. 2224. Particulars and forms of Tender can be obtained by *bona fide* Tenderers upon application to the undermentioned address, to which Tenders are returnable not later than twelve noon on Wednesday, September 26, 1951.—AGENT GENERAL FOR NEW SOUTH WALES (Engineer's Branch), 56/7, Strand, London, W.C.2.

GLOSSARY OF WOOD. A technical dictionary for all associated with timber and its uses. Ten thousand terms about timber—the common and the little known, the old and the new. Ten thousand definitions covering the entire field of timber and its uses—growth, marketing, utilisation. The commercial timbers, their qualities and uses, tools and woodworking equipment, are all here explained simply, concisely and accurately. Illustrated by many clear line drawings. Price 21*s*. net. By post 21*s*. 9*d*. Tothill Press Limited, 33, Tothill Street, London, S.W.1.

WANTED, young man with Railway Locomotive experience, for training for post in the offices of DAVIES & METCALFE LIMITED, Injector Works, Romiley, near Stockport.

SENIOR DRAUGHTSMAN, with first class experience of railway and wharf work, required by London firm of consulting engineers. Salary by arrangement. Applications will be treated in strict confidence. Please state age and write full particulars of training and experience.—Box "JY/90," c/o 95, Bishopsgate, E.C.2.

INTERNATIONAL RAILWAY ASSOCIATIONS. Notes on the work of the various associations concerned with International traffic, principally on the European Continent. 2*s*. By post 2*s*. 2*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

BOUND VOLUMES.—We can arrange for readers' copies to be bound in full cloth at a charge of 25*s*. per volume, post free. Send your copies to the SUBSCRIPTION DEPARTMENT, Tothill Press Limited, 33, Tothill Street, London, S.W.1.

ber of the Committee, attended. The fork trucks used on this occasion were supplied by Lansing Bagnall Limited and Matling Limited. Available for inspection also was a British Railways pallet experimental van, the standard doors of which had been modified to 8 ft. 6 in., containing a load of cartoned products the sides of which had been glued together to prevent movement during shunting.

Traveling Cranes for Track Relaying.—An article in our July 13 issue described the diesel-electric travelling cranes for track relaying which the London Midland Region now has in use. There was a reference also to this development having been begun by the former L.M.S.R. in 1946, from which it might be assumed that the L.M.S.R. was responsible for initiating this method of track laying at that time. Actually this method was introduced by one of the main-line companies a few years after grouping.

British European Airways Dispute Settled.—On Tuesday night, agreement was reached in a dispute between British European Airways and the Association of Supervisory Staffs & Technicians, and normal working began the next day. Twenty-four B.E.A. services to and from the Continent were cancelled on Tuesday because of work-to-rule action by 300 members of the association, and 40 per cent. of the British internal services to Scotland, Northern Ireland, and the Channel Islands were also cancelled. Between 30 and 50 flights had been cancelled daily since Saturday.

River Clyde Steamers as Liner Tenders.—On July 17 two British Railways steamers on the Clyde acted as tenders to the liner *Liberte* when she lay off Craigendoran at the Tail of the Bank anchorage. In the morning the P.S. *Waverley* did duty and the P.S. *Jeanie Deans* took over in the afternoon. About a thousand tourists from the liner joined special trains for Edinburgh. One train left at 8.56 a.m. and on the return journey brought the sightseers back *via* Stirling. The second train, which left Craigendoran at 9.20 a.m., returned direct from Edinburgh Waverley at 6.25 p.m.

Eastern Region Bank Holiday Trains.—Many additional trains have been arranged by the Eastern Region to cater for passengers during the August holiday period. From August 2 to August 8 there will be 284 additional main-line trains. These will include trains servicing Newcastle, Edinburgh, Aberdeen, and the West Riding of Yorkshire, as well as the principal towns in East Anglia. Similarly many additional trains will be run to cater for the needs of passengers journeying to London for the holiday and for returning passengers after the holiday. Various cross-country services linking the more important provincial towns will be run in duplicate.

Vickers Limited Interim Dividend.—At a meeting of the board of Vickers Limited on July 19 the following interim dividends were declared in respect of 1951: 2½ per cent. actual, less income tax, on the preferred 5 per cent. stock; 2½ per cent. actual, less income tax, on the 5 per cent. preference stock; and £2 1s. 3d. net per £100 stock on the cumulative preference stock.

Railway Signalling Relays.—A British Standard was first published in 1934 and has now been revised (B.S. 561: 1951) as part of a general revision of British Standard Specifications for railway signalling relays. The standard applies to a.c. line relays of the 2-element 3-position induction type for use on railway signalling circuits not exceeding 250 volts. Carbon-to-carbon contacts are no longer specified as they are not now generally used. The former minimum drop-away value of 80 per cent. of the pick-up voltage has been reduced as the result of specifying tolerances for contact alignment. A further change is that two standard types of contact equipment are specified. Requirements are laid down in respect of mounting, mechanical clearances, bearings, coils, contact capacity, contact pressure, contact resistance, flexible connections, terminals and terminal markings, insulation tests, pick-up and drop-away values, labelling and marking, finish, and pointer scale. Copies may be obtained from the British Standards Institution, Sales Department, 24, Victoria Street, London, S.W.1, price 2s.

Increase in Parcel Post Rates.—Last week the Postmaster General announced that, resulting from the recent increase in railway freight charges, the inland parcel post rates will be increased on Monday, July 30 by 1d. at each of the first three points of the weight scale, and by 2d. at each subsequent point. At the same time the postage for parcels from the United Kingdom to the Irish Republic will be increased by 3d. at each point of the weight scale. A statement by the G.P.O. says that railway parcel rates were increased by 10 per cent. on

Naming of Locomotive "Mayflower"

Commander Harold L. Goodwin, U.S. Navy, unveiling nameplate of No. 61379 *at Kings Cross on July* 13*; on his left are Mrs. Goodwin and Mr. C. K. Bird, Chief Regional Officer, Eastern Region.* (*See article in last week's issue*)

April 16, making them 99 per cent. higher than before the war. Increases in the parcel post rates were necessary to reduce the loss falling on the parcel post service and to preserve a reasonable degree of parity with railway parcel rates. The new rates represent an average over the present rates of slightly less than 10 per cent. and an increase on prewar rates of about 81 per cent. At present the parcel post service is being run at a loss which will not wholly disappear when the rates are increased.

Leyland Motors Limited.—A merger scheme set out in a joint Albion Motors Limited-Leyland Motors Limited circular having been approved by Leyland stockholders and accepted almost unanimously by Albion shareholders is now awaiting the sanction of the court.

Radar for British Railways Vessels.—All sea-going vessels, both passenger and cargo, belonging to the British Railways fleet will soon be fitted with radar. At present 42 vessels, covering most of the principal passenger routes, are equipped with radar, leaving 31, mostly cargo ships, still to be fitted.

Shipment of New Potatoes from Bute to the Mainland.—British Railways steamer *Ardyne* is for the time being sailing daily except Sundays from Kilchattan Bay to Fairlie Pier in connection with the transport of the new potato crop from the Island of Bute to the mainland. The first of the crop was brought over at the beginning of the month and the last of the crop is not expected to be uplifted from the fields and shipped until the end of August. Most of the traffic is railed from Fairlie Pier to Glasgow.

British Timken Limited.—Mr. F. J. Pascoe, Chairman & Managing Director, stated at the recent annual general meeting of British Timken Limited that their turnover for 1950, three times that for the year 1946, was approximately 17 per cent. higher than the 1949 figure, while the number of employees increased by approximately 7 per cent. A noteworthy success during the year was the selection by British Railways of their tapered roller-bearing axleboxes for all the roller-bearing equipped standard locomotives to be built by the railways in 1951. This has since been followed by a repeat order covering all roller-bearing equipped locomotives in the 1952 programme.

Western Region Steel Traffic.—Something like 9,000 tons of strip steel produced by the continuous hot-strip coil process was conveyed by the Western Region of British Railways during the first three weeks of production. Manufacture of steel coil by this process has recently been commenced at the New Abbey Works of the Steel Company of Wales Limited at Port Talbot. The coils, which vary in size and weight, are being transported to all parts of the country in specially equipped standard open trucks. Large 42-ton wagons will be used in the case of some consignments. To devise the best method of transit there was close co-operation between the steel company and the Western Region.

Forthcoming Meetings

July 28 (*Sat.*).—British Railways, Southern Region, Lecture & Debating Society, ramble over the Surrey Iron Railway.

August 6 (*Mon.*).—Irish Railway Record Society, visit to Athlone, Coras Iompair Eireann.

Railway Stock Market

Stock markets have marked time for the greater part of the week awaiting a statement by Mr. Gaitskell on economic problems. Industrial share values suffered a sharp reaction because of fears of some form of dividend limitation either by way of legislation or by a general request on the lines previously adopted. Mr. Gaitskell stated at the time of the Budget that he was not opposed to moderate dividend increases and the higher payments since announced have been generally very moderate in relation to earnings and the large sums placed to reserves. June trade figures have shown, however, that the terms of trade are moving against us, which, combined with the growing inflation danger as more goods are diverted to the arms drive, suggest that a difficult period is approaching. Consequently there are fears that a plea for restraint in wage increase claims may be coupled with one for dividend limitation. Most of the leading industrial shares at the time of writing have fallen to levels showing quite attractive levels on the basis of unchanged dividends so that unless Mr. Gaitskell has some very drastic plans share values may show a good recovery. British Funds, also, have moved lower owing to general market uncertainty and the fact that a substantial instalment falls due this week in respect of the recently issued £75,000,000 of new 3½ per cent. Gas stock.

Foreign rails were rather more active and this was partly because the fear of dividend limitation at home has tended to attract more attention to overseas securities. After their recent reaction Antofagasta preference attracted and strengthened to 61 as this stock continues to be regarded in many quarters as probably the most attractive investment-cum-speculative stock remaining among foreign rails. Antofagasta ordinary changed hands around 9¾. United of Havana stocks kept steady pending further news from Cuba of the Nationalisation plans and the British move to secure fair terms. The 1906 debentures changed hands around 18. In other directions Nitrate Rails were 23s. and Taltal 17s. 3d. Bolivèr "C" debentures were 68 and La Guaira ordinary 88.

Canadian Pacifics have not held best levels, but remained active around the higher level of 55¾, partly due to the attention drawn to the important possibilities of Canadian oil developments, in which it is thought Britain is likely to take a financial interest. Canadian Pacific preference stock was 73½ and the 4 per cent. debentures 94.

Leopoldina stocks came in for more attention on renewed hopes that the payout will not be much longer delayed. The ordinary stock was 10½, the preference 27, the 4 per cent. debentures 95½, and the 6½ per cent. debentures 141½. The Terminal 5 per cent. debentures strengthened to 94½ and the ordinary units 1s. 3d. Brazil Rail bonds were 110s. and San Paulo 10s. units changed hands around 14s. 9d. Manila "A" debentures were 76 and the 5 per cent. preference 7s. Mexican Central "A" bonds firmed up to 58½. White Pass Yukon stocks remained firm, with the 6 per cent. debentures at 90 awaiting the expected capital scheme.

There was little business in road transport shares. West Riding were 49s. 6d., Southdown 97s. 6d., and Lancashire Transport 60s. 6d., while elsewhere B.E.T. deferred stock was 515 earlier in the week, awaiting the annual meeting.

Engineering and kindred shares have not been immune from the reaction in markets. Vickers, recently a feature of strength, came back to 52s. 3d., Cammell Laird 5s. units were 13s. 7½d., Guest Keen eased to 60s. 3d., and William Cory, despite the higher payment, came back to 95s. with the market trend, Babcock & Wilcox eased to 79s. 9d. and Powell Duffryn to 33s. 3d. T. W. Ward were 73s., and various other shares which had been strong recently on higher dividend hopes also lost ground, awaiting any statement Mr. Gaitskell may have on the question of dividend limitation. Thornycroft receded to 122s. 6d.

Among shares of locomotive builders and engineers Birmingham Carriage were 38s. 3d. and Hurst Nelson 64s. Vulcan Foundry eased to 29s. 9d., Beyer Peacock were 33s. 6d., North British Locomotive 18s. 9d., and Gloucester Wagon 17s., while Wagon Repairs 5s. shares were 15s. 4½d. Charles Roberts came back to 107s. 6d., buyers awaiting the dividend announcement. This is a case where an increase had been expected in the market, but this might not be permitted if Mr. Gaitskell were to propose strict limitation of company dividends.

Traffic Table of Overseas and Foreign Railways

	Railway	Miles open	Week ended	Traffics for week: Total this year	Traffics for week: Inc. or dec. compared with 1949/50	No. of week	Aggregate traffics to date: Total 1950/51	Aggregate traffics to date: Increase or decrease
South & Cen. America	Antofagasta ...	811	13.7.51	£ 130,140	+ £ 53,410	28	£ 3,240,310	+ £ 1,514,840
	Costa Rica ...	281	May, 1951	c566,653	– c467,774	47	c10,178,533	+ c694,685
	Dorada	70	June, 1951	36,543	+ 12,762	26	213,760	– 17,412
	Inter. Ctl. Amer. ...	794	May, 1951	$1,274,443	+ $190,877	22	$5,898,678	– $16,121
	Paraguay Cent. ...	274	13.7.51	₲307,487	+ ₲114,123	2	₲514,330‡	– ₲110,656
	Peru Corp. ...	1,050	June, 1951	$8,533,000	+ $1,650,000	52	$92,754,000	+ $21,536,942
	,, (Bolivian Section)	66	June, 1951	Bs. 15,967,000	+ Bs.1192000	52	Bs. 160,349,000	+ Bs.49,599,336
	Salvador	100	May, 1951	c138,000	+ c31,000	48	c1,867,000	+ c136,000
	Taltal	154	June, 1951	$1,675,315	– $259,456	52	$20,544,647	+ $2,959,409
Canada	Canadian National†	23,473	May, 1951	17,653,000	+ 1,809,000	22	82,112,000	+ 12,717,000
	Canadian Pacific† ...	17,037	May, 1951	12,462,000	+ 1,788,000	22	56,846,000	+ 8,518,000
Various	Barsi Light* ...	167	May, 1951	32,460	+ 5,985	9	82,687	+ 22,425
	Egyptian Delta ...	607	10.4.51	17,513	– 267	4	17,513	– 267
	Gold Coast ...	536	May, 1951	262,770	+ 5,883	8	556,234	+ 70,167
	Mid. of W. Australia	277	Apr., 1951	41,036	+ 8,060	43	398,533	+ 89,683
	South Africa ...	13,347	23.6.51	1,846,068	+ 174,680	12	22,593,556	+ 3,735,565
	Victoria	4,744	Feb., 1951	1,739,845	– 87,111	35	—	—

* Receipts are calculated at 1s. 6d. to the rupee † Calculated at $3 to £1
‡ Receipts for thirteen days in 1951-52, compared with fourteen days in 1950-1951